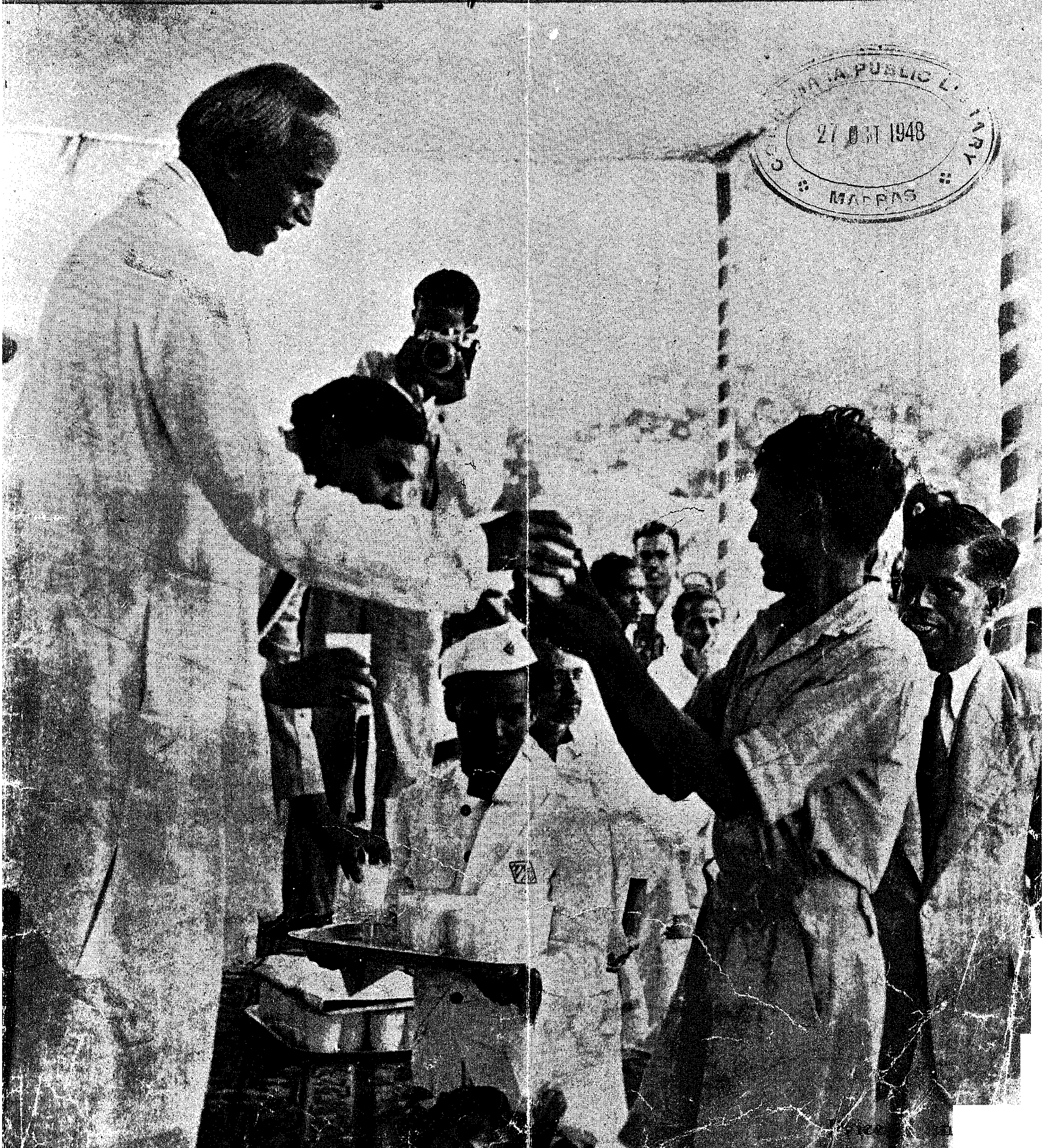
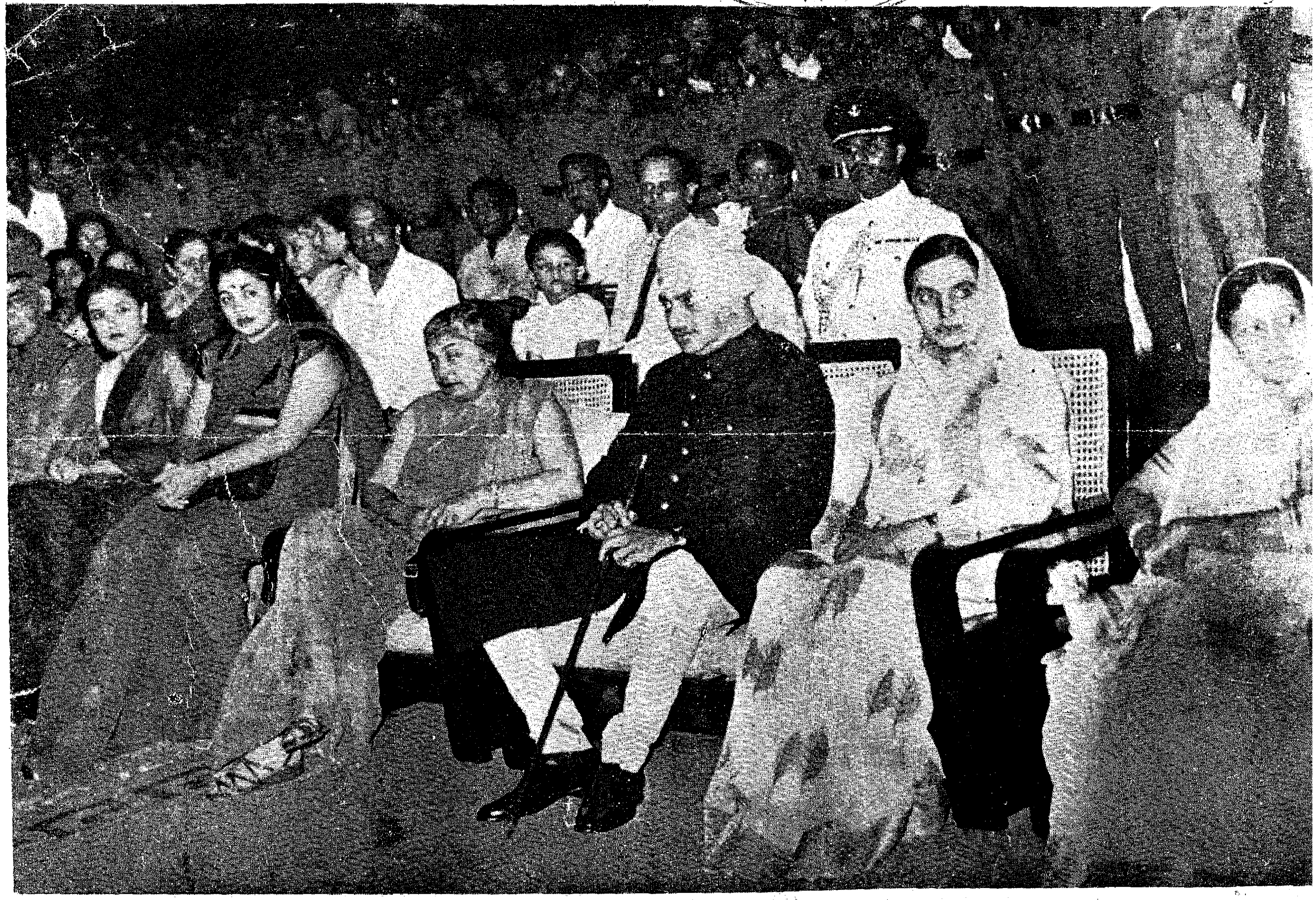
MADRAS INFORMATION

VOL. II MADRAS, 1st NOVEMBER 1948 NO. 19



CONNEMARA PUBLIC LIBRARY
27 OCT 1948
MADRAS

CONN... LIBRARY
27 OCT 1948
MADRAS



His Excellency the Governor at the 'Retreat' played on the marina by the Military band of Madras area

Madras Information

Published every fortnight by the Director of Information and Publicity
Fort St. George

Vol. II, No. 19 "WE SEEK TO SERVE AND NOT TO COMPETE" November 1, 1948

Prohibition and Public Co-operation

The entire Province has gone dry. The Madras Government have thus given full practical expression to one of the cherished ideals of Gandhiji. Prohibition is not a fad; it is a constructive, social and moral reform holding within itself vast potentialities for the good of the common man. It has an indispensable place in the improvement of the standard of living of the masses—a goal to which the Central and Provincial Governments are striving with unflagging energy in this post-war period. The immense enthusiasm with which the advent of prohibition was celebrated in this Province by the masses is a measure of the realization by the common people of its vital place as a rejuvenating factor in their lives.

But the point has to be emphasized that the mere introduction of prohibition will not by itself achieve any good. Prohibition has to be enforced in a thorough-going fashion so that the blessings that are expected to come out of it may flow in abundant measure. It has been pointed out in these columns that prohibition is a moral reform and for the enforcement of any moral reform, public co-operation is indispensable. Writers, who have studied the causes for the withdrawal of prohibition in America, opine that one of the basic factors for withdrawal was the defective enforcement of prohibition in that country due partly to lack of public enthusiasm. The truth or otherwise of this statement apart, the fact remains that for the successful enforcement of prohibition, public co-operation is an important factor.

What forms should this co-operation take? Co-operation can be extended by the people in very many ways. Chances for evading the prohibition laws are considerable in this country and one of the ways in which people can co-operate is to assist the authorities in the detection of offences against prohibition laws. Then again considerable assistance can be rendered to the Government by disseminating correct ideas about prohibition. It cannot be denied that there is a lot of ill-informed propaganda against prohibition. An ordinary

IN THIS ISSUE

Premier giving a cup of milk to an ex-addict in the city—*Frontispiece*
Prohibition and Public Co-operation
Prohibition in other Countries
More about Prohibition
Notes and Comments
Press Notes, Releases, etc.
Departments' Activities
Schemes and Programmes
Problems and Achievements
Rural Topics
Special Articles
Agricultural Notes
Delhi Diary
Other Provinces
Books and Publications

man who has no time to think over these things may perhaps be carried away by such propaganda. It is, therefore, the duty of the more educated to counteract ill-informed propaganda and assist in seeing that correct ideas about prohibition are propagated. The Government have also drawn up a vast programme of counter-attraction for ex-addicts. It is a common place in the literature on the subject that any scheme of prohibition, which does not reckon with the importance of counter-attraction, is bound to fail, for, the lack of diversions and amusements especially in rural parts is one of the basic factors in the drink evil. Hence the necessity for an elaborate programme of counter-attractions in order that the ex-addict may not feel the necessity to resort to the liquor shop either as an escape from this monotonous life or as a matter of diversion. It is up to every citizen to assist the Government in making the counter- attraction programme as effective as possible.

The province has launched upon a big experiment and the people of Madras have a special responsibility. Inaugurating the prohibition in the Madras City the Hon'ble Premier of Madras said : " Let Madras take pride of place, as the province that has led the country and the world in prohibition and show that prohibition can succeed ". He also warned " If we in Madras fail this time, it will only mean that prohibition has failed in the whole world ". These words have to be noted carefully. The Government expects every man to do his duty. His duty mainly consists in whole-heartedly co-operating with the Government in the successful implementation of one of the greatest social experiments.

THE PROOF OF THE PUDDING IS IN THE EATING

Madras Information will amply repay perusal

The Cheapest Journal in South India

Special Features: Delightful photographs—Topical articles—Notes on Governmental activities—News round-up of other Provinces and the Centre, etc.—A wealth of information on a variety of subjects . . . .

Price: Single copy—2 annas . . . Annual subscription—Rs. 3 only

Apply to:

THE DIRECTOR OF INFORMATION AND PUBLICITY
FORT ST. GEORGE, MADRAS

The Financial Effects of Prohibition

The Government stand to lose to the tune of Rs. 17 crores, as a result of total prohibition. But nearly Rs. 70 crores will be saved for the people till now addicted to drink. The ultimate savings may be even more than this, due to the "multiplier effect," points out Dr. Natarajan in this article.

17 Crores Lost; 70 Crores Gained!

Prohibition was re-introduced in this Province by stages from 1st October 1946. The following statement shows the progressive reduction in the Excise Revenue of this Province due to the introduction of Prohibition :—

Year.	*Excise Revenue.* RS. CRORES.
1945–46	16·795
1946–47	14·680
1947–48	10·542
1948–49	3·841

The revenue will be nil from 1949–50. Therefore within the space of five years the Government will have lost nearly Rs. 17 crores of revenue by the introduction of Prohibition throughout the Province. Though this is a serious loss to Government revenue, which cannot be made good easily, the benefits accruing from the introduction of Prohibition to the poorer classes addicted to the drink evil, are incalculable. It is well known that a man who buys liquor pays nearly four times as much as the tax on liquor. On this basis nearly Rs. 70 crores will be saved for the people addicted to drink, which in the case, especially of the poorer classes can be turned to better uses, such as the satisfaction of their primary wants of food and clothing and other necessities of life, which they should, previously have been obliged to deny themselves in a large measure due to their addiction to the drink evil.

DR. NATARAJAN, M.A., D. LITT.,
Economic Adviser to the, Government of Madras.

Reaction on Trade

It is difficult to assess objectively the effect of Prohibition on trade and business. The figures of revenue from sales tax subsequent to the re-introduction of Prohibition were examined to find out whether the increase in the sales tax revenue was greater than was warranted by the increase in the rate of sales tax on the one hand and in the general price level on the other. The following statement shows the increase in the revenue from sales tax from 1946–47.

Year.	*Sales tax.* RS. CRORES.	*Index of sales tax revenue.*
1946–47	7·2177	100
1947–48	8·6844	120
1948–49	11·6856	162

The rate of sales tax was 1 per cent in 1946–47, an average of 1·14 per cent in 1947–48 and 1·56 per cent in 1948–49. During these three years, the general price level in this Province increased from an index of 319 in 1946–47 to 351 in 1947–48 and 416 in 1948–49, so that if the increase in the revenue from sales tax had been commensurate with the increase in the rate of tax and in the general price level the total revenue from the tax should have increased from an index of 100 in 1946–47 to 125 in 1947–48 and to 203 in 1948–49. A comparison of these indices with the previous ones shows that the increase in the revenue from sales tax has not been as high as it should have been, having regard to the increase in the rate of tax and in general price level. This is contrary to what one would have expected in the face of the large increase in the spending power of the people addicted to drink as a result of Prohibition.

Fertile Field for Savings Campaign

The unexpected reduction in sales turnover may be attributed either to a falling off in the efficiency of collection or to the shortage of commodities in the market due to famine in the years 1945–46 and 1947–48. It is, however, clear that here is a fertile field for the savings campaign operations. The institution of shorter termed loans together with the payment of higher rates of interest is bound to attract considerable savings from the former drink addicts. The opportunity afforded by Prohibition for an intensification of the savings campaign should therefore be availed of in the fullest measure in this Province. This will also help a great deal in the fight against inflation.

Economic Enquiry must be instituted

In the above paragraph it has been estimated that the total amount that will be saved on account of the introduction of Prohibition will be roughly Rs. 70 crores. The ultimate savings may be much more than this due to the operation of the "multiplier effect." What the savings are likely to be, can be assessed only as a result of detailed enquiries in the different districts such as those undertaken by Dr. Thomas and Dr. B. V. Narayanaswamy Naidu when Prohibition was introduced for the first time in this Province. Professor Vakil is now undertaking a similar enquiry in Bombay, and it is very desirable to institute an enquiry in this Province, to properly gauge the economic effects of Prohibition.

THE MONARCH OF ALL HUMAN VICES

Drunkenness is the monarch of all human vices. Other evils are its mere satellites. It permeates and poisons and rots every department of life and every avenue and faculty of the human body. Once in a distant age intoxicating liquor was the supposed instrument of fellowship and good cheer. It is now the debased and adulterated instrument for the exploitation for profit and the promotion of personal vices. It has grown to astounding proportions. The longer it continues, the greater its evil and the more potent its strength. It has entrenched itself with human avarice and become its ally to exploit the pitiable weakness of humanity to accumulate fortunes.

From "*Prohibition*" by Benman.

PROHIBITION IN OTHER COUNTRIES

America

Critics of prohibition often point out that prohibition has failed in America and it is not going to succeed in this country. Comparisons are generally odious and are liable to be most misleading when two dissimilar things are compared. Conditions in America and India are fundamentally different and the conclusions drawn from a comparison of both is bound to err. Apart from this fact it is a moot point whether prohibition proved really a failure in America. Whatever that be, there is no gainsaying the fact that during the period it was in force it produced valuable results. Americans are shrewd business people and they would not have tried prohibition had they been the least sceptical about its benefits. In a country where drinking was widespread, the successful working of Prohibition was not an easy job. Prohibition involves total abstinence from anything intoxicating, and to impose it on a fashionable society was a stupendous job. Saloons are a familiar feature of American social life and prohibition which involved the abolition of this main attraction of society naturally met with serious opposition. Powerful liquor interests in America proved another stumbling block. They fought to the last ditch against the introduction of prohibition. They argued at first that the State was not within its rights in introducing prohibition which meant, according to them, interferes with personal liberty. This was overruled by the Supreme Court and then they raised the bogey of unemployment of persons who will be thrown out as a result of the stoppage of liquor industry. This argument also proved futile. Subsequent experience showed that the numerous industries which received a fillip through the money released on account of prohibition absorbed not only all the people thrown out of employment but was able to provide room for more. Thus prohibition has had to clear more than one hurdle before it could become an accomplished fact.

A Chronological Story

The chronological story of American prohibition is a long one marked by persistent and sustained effort and planned action. First voluntary abstinence was tried but in the nature of things it could not cut much ice. Later the Church stepped in and the various denominations of the Protestant Church mobilized their forces on behalf of prohibition. They issued appeals and pamphlets, educated public opinion and organized associations to further this cause. The names of Father Mathews and G. P. Gough have to be remembered in this connexion. Later Mr. Johnson familiarily known as "Pussyfoot" Johnson played a heroic role in the field of prohibition. The educational atmosphere was also prepared for the favourable reception of prohibition. Children in schools were taught the evils of drink. As a result of all these a considerable body of opinion was built up and the momentum it imparted resulted in the enactment of the National Prohibition Act in 1919. Even prior to this, some States had introduced prohibition.

Benefits of Prohibition

The benefits which accrued from prohibition may be classified as political, economic and social. Firstly, political. Prohibition resulted in the cleansing of American politics. It led to the abolition of the American saloon. Theodore Roosevelt said "The American saloon has been one of the most mischievous elements in the American social, political and industrial life." The saloons were centres of an organized traffic which corrupted elections, debauched voters, debased many legislators, and their officials. One political writer says, "Speaking generally, there has been no factor in American political life more productive of bad Government than the saloon. Democracy depends on a clean ballot and a free electorate. Both these are impossible when the political boss uses the saloon as a functioning point in the interests of bad Government and corrupt politics." Economically the results were equally valuable. There was a general increase in savings; in one State alone, 15,000 new savings bank accounts were opened. The standard of living rose. Industries improved including the stage and the cinema. Industrial efficiency increased and with it productivity also. The temper and morale of workers also increased. Fatal industrial accidents decreased. Frequent absenteeism of employees fell to a minimum. Socially also, there was all-round improvement. Domestic life became happy. Complaints about ill-treatment of wives and desertion dropped considerably. The domestic atmosphere became purified as a result of the elimination of drink. Suicides and homicides also showed a remarkable fall, as also divorces. Incidence of mental diseases also decreased. Insanity fell by a heavy percentage as also venereal diseases. Prostitution disappeared largely with drink and with the disappearance of prostitution, vener al diseases also showed a fall. Tuberculosis otherwise known as white plague also declined. The average death-rate markedly fell as also that of infant mortality. Arrests on account of drunkenness showed a marked fall. Vagrancy also decreased. Women ceased to frequent criminal courts and the number of crimes also dwindled in a remarkable way.

> Most of the suffering in the world was the result of misunderstandings. One should think before speaking and never waste a single word. One's speech should be a true reflection of one's thoughts, and actions should reflect the spoken word.
>
> —MAHATMA GANDHI

Conclusion

Mr. Harding, President of the U.S.A., said in the course of a message on the eve of his presidential election, "In every community men and women have an opportunity now to know what prohibition means. They know that debts are more promptly paid, that men take home the wages that once were wasted in saloons, that families are better clothed and fed and more money finds its way into the savings bank. The liquor traffic was destructive of much that was precious in American life. In the face of so much evidence . . . what conscientious man would want to let his own selfish desires influence him to vote to bring it back."

Russia

The cheaper form of vodka is distilled from potatoes. The vodka industry, therefore, required the production of vast quantities of potatoes. The Poland potato crop had been planted in the spring of 1914, but when the war came on, the Emperor of Russia issued his famous edict prohibiting the manufacture and sale of all intoxicating liquors, including vodka. At first this seemed a crushing blow to the industry of Poland, but after the country had been desolated by war and the ordinary food supplies had been exhausted, the people of Poland found themselves in possession of a vast harvest of potatoes, and these potatoes, no longer valuable for the manufacture of vodka, provided a supply of food which kept the nation alive during the winter which followed.

Immediately after the taking effect of the edict, the savings bank deposits in Russia began to increase at a most amazing rate, and this notwithstanding the fact that Russia was in the midst of war, with her industries disturbed and all her usual business affair depressed. A few figures may be given to illustrate this result of prohibition in Russia. The savings bank deposits in Russia, including Poland, on January 1, 1914, were 240,000,000 roubles (a rouble being about 50 cents); on February 1, 1914, 233,000,000 roubles; on March 1, 1914, 260,000,000 roubles. It will be noticed that these figures refer to dates before the prohibition edict was issued and also before the beginning of the war. The deposits on the corresponding dates one year later, while the war was at its height, show the following savings bank deposits in Russia. January 1, 1915, 438,000,000 roubles, an increase of nearly 100 per cent over the showing of January 1, 1914; February 1, 1915, 509,000,000 roubles, an increase of over 100 per cent; and March 1, 1915, 737,000,000 roubles, an increase of almost 200 per cent.

MORE ABOUT PROHIBITION

Alcohol in relation to Health

It is no longer a disputed fact that alcohol is detrimental to health. Ill-informed critics may perhaps attribute medicinal properties to alcohol. Some others may contend that in a tropical climate it may have a sustaining power. But authoritative medical opinion has exploded the myth of the medicinal properties of alcohol. The Bhore Committee report has referred inter alia to alcohol in relation to public health. The following extract from that report will be of topical interests.

The subject of alcohol consumption can hardly be discussed without giving rise to sharp differences of opinion. On the one hand there is a school of thought which considers that its use should be prohibited in the interests of the individual and of the community. Its consumption, except in strict moderation, may damage the health of the individual, reduce his working capacity and thus affect adversely the economic condition of himself and of those dependent on him. It is urged that total prohibition is in the interests of the individual and of society because the excessive use of alcohol is often associated with violations of public decency and with anti-social acts such as neglect of family obligations and crimes of violence, while the proportion of those who can exercise sufficient control over themselves and limit its use to such moderate amounts as will not cause harm to health is, it is claimed, small. On the other hand there is another school of thought which claims that the moderate use of alcohol has its proper place in modern civilized life with the continuous stress and strain which it imposes on the individual. At the end of long and arduous day a small dose of alcohol promotes that relaxation of tension and that sense of well-being and exhilaration which, it is claimed, can do no harm to the man and probably helps him to readjust himself to the work that awaits him the next day. Under existing conditions there is, indeed, a considerable measure of justification for both these schools of thought. For certain members of the community, with adequate mental balance to restrain themselves and practi e strict limitation on the comsumption of alcoholic beverages and with comfortable incomes which make the expenditure on drinks no strain on their financial resources, the deprivation of the desired dose of alcohol after the day's work may well be unjustified. On the other hand for the many millions in this country who, after a day's hard toil, do not earn sufficiently to keep themselves and their families properly fed, clothed and housed, the provision of a temptation to throw away a part of their wages for a transient feeling of contentment can hardly be considered as just either from the point of view of the individual or of the community.

No opportunity should be neglected however trifling.

—MAHATMA GANDHI

Certain generally accepted Facts regarding Alcohol in relation to Health.

(1) The main action of alcohol is on the nervous system. It depresses the higher centres of the brain. The stimulant action popularly attributed to it is due to a relaxation of tension. With the exception of its action on the respiratory system alcohol never stimulates.

(2) In very small doses it has a sedative effect. It therefore helps to soften the harshness of life and to increase the enjoyment of social intercourse. It produces a temporary sense of well-being which is technically described as euphoria. But even a small dose of alcohol seems to impair the precision of an act demanding co-ordination of muscular effort. Jameson and Parkinson in their "Synopsis of Hygiene" state that "Physiological tests on the competence of moto

driving may be affected by concentrations of alcohol much smaller than those needed to affect the behaviour in ordinary clinical tests." In larger doses intellectual processes are impeded or suspended and even coarse muscular movements are rendered difficult or impossible.

(3) As a food it requires no digestion before it is absorbed into the blood. It is, however, of little value as an ordinary source of energy because of its harmful effects on the higher nervous centres. Unlike other foods it cannot be stored in the body to be drawn upon as required. If taken frequently, the human body is never free from it and certain deleterious changes in the liver and other organs are brought about.

(4) In medical treatment alcohol serves but a limited purpose. In cases of fainting a small dose of alcohol, by weakening the "excessive check on the heart action exercised by the nervous centres, and on account of its sedative influence on the higher levels of the brain" may exert a temporary beneficial influence in relieving pain and anxiety. But the general medical outlook regarding the use of alcohol in the treatment of disease has considerably changed. We may sum up the position in the following words of the late Lord Moynihan :—

"It is difficult to realise that 50 years ago the use of alcohol was considered necessary in the treatment of disease and advisable for the maintenance of good health . . . Today medical science is of one mind that alcohol, while it has its uses, is unnecessary and often harmful in the routine treatment of disease."

(5) As regards its effect on mortality, a comparison between total abstainers and non-abstainers shows that the former are longer lived. "Insurance companies have found that the expectation of life is some three and a half years less for non-abstainers than for total abstainers." The extent to which alcohol affects longevity depends on the amount consumed by the individual from day to day. Detailed studies of mortality statistics of American and British life insurance companies seem to suggest that :

"1. Moderate users of alcohol, who touch it only occasionally and then in moderation, are probably as long lived as total abstainers, provided they always maintain moderate habits in all phases of living.

"2. Those who drink moderately, say, an average of two glasses of beer or one glass of whisky per day, have a higher mortality than the average, partly due to a percentage of them eventually exceeding this moderate consumption.

"3. Those who drink occasionally to the point of intoxication, or have a few protracted sprees yearly are distinctly shorter lived than the average."

Ameliorative Activities

The following is a summary of the report received from the Prohibition districts on ameliorative activities :—

Tiruchirappalli.—Harijans in one taluk staged a drama and this was witnessed by a considerable number of people. A volley ball court was opened under the auspices of a grama sangam. Hundi boxes were distributed to members of a co-operative society.

After Prohibition

Thrift Campaigns, opening of Reading rooms, formation of Reading ircles Cand Tree Planting drive are some of the more important featurcs of ameliorative work. The spirit of co-operative enterprise among the villagers is a healthy sign which bids fair to accelerate rural progress.

Madura.—Thrift day was celebrated in one place. A library has been opened. Night schools have been started in a number of places. Five fodder societies were affiliated to the Periyakulam Co-operative Union. Inter-village sports also took place.

Bellary.—Sports were held as usual. A rural exhibition was held in which a number of Government departments took part. The Bellary Co-operative Milk Supply Society was started on its work. Proposals for organizing a co-operative society for rope making industry are under consideration.

Before Prohibition

Malabar.—One grama sangam celebrated prohibition day. The occasion was utilized to stress the evils of drinking. Cleanliness day was celebrated in some cheries. A music party was held under the auspices of another grama sangam. The propaganda van was taken to a number of centres and films were exhibited. Prohibition day was celebrated in other places also. In Calicut division a reading room and a recreation club were declared open.

Nilgiris.—There was a cattle show in one place, which was largely attended.

Coimbatore.—Sports and tournaments took place as usual. Grama sangams continued to do useful work. One grama sangam is constructing a school building at a cost of Rs. 6,000. Three other grama sangams are similarly constructing school buildings at a cost of Rs. 4,000, Rs. 1,300 and Rs. 2,000 respectively.

Anantapur.—A Cattle Breeding Co-operative Society was started in one place. Libraries were opened in some places. A village betterment committee constructed a building at a cost of Rs. 2,000 for a library.

Nellore.—By-laws regarding Home Safe Deposits were introduced in several co-operative societies. Thrift collection day was celebrated in one place. Street dramas were enacted and folk dances were performed. Bhajanas were arranged in 23 villages. Street cleaning and sanitation drives were launched.

Salem.—Thrift day was celebrated in some places. Compulsory education was inaugurated in some places. A flag post worth Rs. 200 was donated for hoisting the National flag. A rural exhibition was conducted in connection with the closing of the rural uplift school. Exhibits from various departments were displayed and the exhibition was a great success.

Chittoor.—Two new drama sangams were organized in Madanapalle division. Rural games took place as usual. Bhajanas and thrift campaign were other features. Street cleaning drive was launched in some villages. Reading circles were formed by grama sangams. Nurseries for tree planting were raised in some villages. Books were collected for a library. A donation was received for the installation of a radio. Stone sign posts indicating the names of villages were fixed in some places. The silt of a drinking water well was got removed with the assistance of the villagers. The Grow More Food and tree planting campaigns were given an impetus.

Kurnool.—A grain shop was opened in one place. Night schools for adults were also started in some places. A tournament was held. There were also folk dances, community singing, kolattam and Bharatha Natyam.

North Arcot.—A firka tournament was held which was largely attended, and there were several items of entertainment in this connection. There was a drama on prohibition enacted by the rural uplift school students.

Tanjore.—A free reading room and a public library were opened in one place. Street cleaning day was celebrated in one place. A firka association was formed.

EFFECTS OF ALCOHOL

1. The main action of alcohol is on the nerve system. It never stimulates.

2. In very small doses it has a sedative effect. It produces a sense of obliviousness in the victim.

3. As food it requires no digestion before it is absorbed into the blood. It has little value as a source of energy because of its harmful effects on the higher nerve system. Unlike other foods it cannot be stored on the body and drawn up as required.

4. In medical treatment alcohol serves but a limited purpose. The medical view of alcohol has changed quite radically in recent times. "Today medical science is of one mind that alcohol is often harmful in the routine treatment of diseases."

5. Longivity is also affected by the habitual use of alcohol. The mortality surveys conducted in America as well insurance records bear out this point.

Research into Effects of Prohibition in Bombay

The Prohibition department of the Government of Bombay has formulated a scheme of economic and social survey in urban, rural and backward areas of the Province to gauge the effects of prohibition.

Investigations would be carried on under the direction of Prof. C. N. Vakil of the University School of Economics with a team of investigators. The Standing Committee of the Research and Statistics Sub-Committee has also secured the expert advice and co-operation of the Tata Institute of Science and Dr. N. S. R. Shastry, Director of Statistics of the Reserve Bank of India. Two groups of villages with a record of heavy and light consumption of toddy and country liquor would be selected for comparative sample investigations.

The Committee met on September 1928 at the University School of Economics when Prof. Vakil was in the chair. The meeting discussed the plan of sample surveys and also decided to send out units of investigators amongst the Bhils, Warlis and Lamanis in the backward areas where the field-work will have to be carried out with the collaboration of the local welfare agencies like the Bhil Seva Mandal and Adivasi Seva Mandal. The meeting, after full discussion, worked out the general plan of action under the survey scheme and settled the form of machinery that will have to be established to carry out the programme of survey.

NOTES AND COMMENTS

Dr. Gurubatham's Exhortation

The Honourable Minister for Firka Development and Prohibition toured in Salem and Coimbatore districts in the beginning of September 1948 and examined the working of prohibition in these districts. He also inspected the ameliorative work at several centres. He addressed meetings at various places and appealed to the public for co-operation in making prohibition a success. He emphasised that the greatest homage that could be paid to Mahatma Gandhi would be to follow his teachings and to cultivate a spirit of unity and brotherhood, truthfulness and honesty. He said that if India was to preserve the Independence which it had obtained, it was necessary to cultivate these virtues and to maintain a high standard of discipline and integrity. He addressed meetings of district officers at Salem and Coimbatore and stressed the need to cultivate a spirit of service to the villagers, a capacity to overcome difficulties and to develop the power of creative thinking. The progress of any reform and the success of any measure, the Hon'ble Minister said, would be judged by the extent to which it benefited the poorest of the villagers.

Food Production Drive in Madras

Further fillip was given to the "Grow More Food" campaign in Madras during the month of June last by bringing an area of 5,833 acres under seed farms in order to increase food production through the use of improved high-yielding seeds. Paddy accounted for 3,929 acres; the figures for millets, pulses and groundnuts being 1,656, 200 and 48, respectively.

In addition, 41,508 acres were grown under improved paddy seeds and 28,000 acres under millet seeds, which were distributed by the Agricultural Department.

The increased demand for oilcakes and chemical fertilizers owing to the commencement of the sowing seasons was met by the sale of 9,811 tons of groundnut cake, 247 tons of other oilcakes and 1,253 tons of chemical fertilizers estimated to increase the production of paddy over an area of about 125,000 acres.

Thirty-seven lakhs forty-seven thousand and seven hundred cuttings of vines of sweet potato and 8,520 cuttings of tapioca were distributed free to ryots to encourage the raising of short-term food-crops. A large quantity of vegetable seeds was sold or distributed free to schools and other institutions to augment vegetable production.

To supplement the manure resources of the Province, which are far short of the requirements of the food-crops, ryots were encouraged to grow green manure crops and to compost all available vegetable waste matter in the villages. Green manure seeds were purchased in producing centres and sold in deficit areas, attention being concentrated on the Cauvery-Mettur Project area, where green manure could be grown over an area of 1·6 lakhs acres between June-September. If the whole of this area is covered, the yield of paddy could be increased by 23,000 tons. One hundred and eighty-two new compost pits were opened, 1,365 filled, and 172,197 c.ft. of compost was distributed for making compost in rural areas.

At an estimated cost of Rs. 2,06,050 the Government have sanctioned the execution of a scheme to provide irrigation facilities to a block of lands in Guntur district. The area expected to be brought under cultivation is 1,489 acres increasing the quantity of foodgrains ultimately by about 744 tons of rice.

Four more schemes for the irrigation of a new ayacut of 34,218 acres, besides providing greater irrigation facilities for an area of 24,073 acres of the existing ayacut, have been sanctioned.

The Role of Public Servants

Speaking recently at the Provincial Veterinary Conference, Hon'ble Sri Madhava Menon, Minister for Agriculture, referred inter alia to what ought to be the goal towards which each public servant should strive. The main thing, he said, was to get the affection of the people for whom they were working. The Minister regretted that as a rule Government servants in all departments as a class were not popular with the masses because they had not made the masses feel that they were working to promote their interests. Veterinary Doctors, he said, should gain the affection and goodwill of the people. It was their duty to apply themselves to their work with a sense of service and always help the owners of the cattle. Their department should never be unpopular for if it did it would be useless. The role of a public servant under the new dispensation of things was emphasised more than once by leaders in this country. The point was stressed by all that public servants are servants of the people in the present set up and not hired agents of a foreign bureaucracy. A spirit of service has to be cultivated by them. It is common knowledge that this country is in the throes of reconstruction in almost every sphere of activity and in such a context, the importance of the role, public servants have to play cannot be over-estimated It is incumbent on them to serve the masses with a missionary's zeal and in a spirit of service.

Fish Culture

Addressing the Fisheries Conference in New Delhi, the Food Minister, Mr. Jairamdas Daulatram, emphasised the great potentialities of fish culture in India and suggested that concrete plans should be evolved for the fuller utilization of our seas, ponds, tanks and paddy fields. The output of fish works out to 111 lb. per head per annum in Japan, 190 lb. in Canada, 63 lb. in Denmark, 49 lb. in Britain, 351 lb. in U.S.A. and 18 lb. in Russia. Together with Iran and Burma, India produces hardly 5 lb. per head. We have 3,200 miles of coastline, but only a narrow strip of 5 to 10 miles of the sea has yet been tapped. If the fishing industry is properly developed, it can extend to greater depths and distances —at least to the 100 fathom line. Experts have estimated that India has not yet tapped even 6 per cent of the entire fishable marine area at her disposal. There is little doubt that greater fish production would effectively augment food supplies in the country. To this end the Governments, both Central and Provincial are making efforts.

PRESS NOTES, RELEASES, ETC.

Paddy Bonus Coupons

Under the bonus scheme of 1947, Government had announced that a bonus at the rate of Re. 1 per imperial maund would be granted to every producer who delivered paddy to the procurement agents of Government during the period 1st December 1946 to 6th December 1947. One-half of this bonus is paid to the producers in cash and the other half in the shape of manures, such as groundnut cake, chemical fertilizers and green manure seeds, to be used for manuring the lands of the producers with a view to increase the food production of the Province. Food bonus coupons are issued to the ryots equivalent

to the value of manures which they are entitled to get under the above scheme and manures are supplied to them in exchange of these coupons.

The stocks of manures (groundnut cake, chemical fertilizers and green manure seeds) available with the Agricultural department as well as the quantity that is expected to be procured during the rest of the year, will not be sufficient to honour all the bonus coupons in full during the current year. Several representations have also been received by the Government from the ryots who are couponholders that they may be paid cash instead of manures in exchange of the bonus coupons. In view of the inadequate stocks of manures and with a view to meet the demand for cash instead of manures from a certain section of the bonus coupon holders, the Government have now decided that bonus coupons may be exchanged either for manures, such as groundnut cake, chemical fertilizers and green manure seeds or for cash according to the needs of the couponholders. The bonus couponholders are therefore informed that in future they have the option to exchange their coupons either for groundnut cake from the co-operative societies or chemical fertilizers or green manure seeds from the Agricultural depots or for cash as they please and that the supply of manures is strictly subject to availability of stocks at the time the coupons are presented. As regards the pending cases wherein the producers have not yet been issued bonus coupons, the Government have issued orders directing the payment of the manure part of the bonus also in cash without issuing any coupons. The producers are further informed that 31st December 1948 has been fixed as the last date for redeeming the bonus coupons; as the Government are anxious to wind up the scheme expeditiously. The couponholders are therefore advised to avail themselves of the concession and redeem their coupons before the above date without fail.

The Collectors of districts have been requested to issue clear instructions regarding the procedure to be followed by the ryots in cashing the coupons at the District Treasuries or Sub-Treasuries and give wide publicity to the same. [September 28]

Donation Works

With a view to encourage philanthrophists to put up hospital and other medical buildings, the Government have directed that no centage charges should be recovered in the case of medical buildings to be constructed with the aid of private donations, and the execution of which is undertaken by the Public Works Department.

[September 22]

Supply of Pump Sets

The Government have accepted the recommendation of the Joint Director of Agriculture that the concessional rate of 8 annas per day or Rs. 10 per mensem for a period of one month and more be levied for petrol pump-sets, which are allowed to be retained with ryots beyond September 30, 1948, and that the concessional rate of Rs. 2 per day in the case of oil engines be continued for a further period of one year from October 10, 1948. As regards tractor pump-sets, the hire charges fixed in the Government Order, dated March 5, 1947, i.e., Rs. 2 per day, will continue to be in force.

The concessional rates of hire charges and the waiver of transport charges now extended up to September 30, 1949, will not be allowed to all hirers as a matter of course, but will be allowed only where it is essential, in order to ensure the best possible use of the pumps, i.e., in cases where applicants who cannot pay full charges, can make better use of the pumps than those, who can pay full charges.

[September 22]

Busts of Mahatma Gandhi

The Government have seen some criticisms in the Press about their decision to authorize the Principal of the School of Arts and Crafts to produce busts of Mahatma Gandhi. These criticisms appear to arise from a misunderstanding that the authorization of the production of the statues necessarily implies that only statues produced by the Principal should be purchased by Government and Quasi-Government authorities. This is not the position. Any one can purchase any statue he likes and the Government do not wish to impose the product of any one sculptor on the public.

[September 17]

DEPARTMENTS' ACTIVITIES

Home Department

Bus Transport

Nineteen petrol buses were registered during August bringing the total number to 289 vehicles including 25 Diesel Buses.

2. During the month the peak hour shuttle service from Mylapore to Adyar route 5-A which was started from 19th July 1948 was discontinued as the route was found to be unremunerative. The question of running a restricted service during certain hours is under consideration.

3. The practice of stop-checks was discontinued from 13th August 1948 and in its place mobile checking was introduced.

4. To provide greater facilities to the travelling public, the frequency of buses on routes 1-B, 3-B and 3-D was increased by reducing the headway from half an hour to 15 minutes. The number of buses on route No. 6 was increased from 9 to 11 and the trips augmented from 125 to 185. Trips were also increased on route No. 22 with the six existing buses from 72 to 105 and two additional buses are run on Saturday and Sunday evenings to meet the demands of the holiday goers. One more peak hour bus was introduced on route No. 21-B and trips increased from 52 to 66. Similarly trips were increased in route No. 3 from 162 to 169.

5. A bus stop at Sunkuwar on Marina route was erected for the benefit of the public going to the beach and Triplicane.

6. On 27th August 1948 (Krithigai festival) special arrangements were made to run 4 buses—2 from Gemini Studio to Vadapalani temple and two from Kodambakkam Railway Station to Vadapalani temple. About 4,700 persons travelled in these buses.

7. One Government Bus was placed at the disposal of the members of the Legislature residing in the Government House at Mount Road to take them to

the Fort St. George and back while the Legislature was in session.

8. On 30th August 1948 the "Express Bus Service" was introduced in routes No. 3 (Mylapore to Parrys), 11 (T. Nagar to Parrys), 7-C (Kelleys to Parrys) and 15 (Aminjikarai to Parrys). Two buses are run on each route as Express Service during peak hours—the rates being 3 annas and 4½ annas. These buses stop only at important traffic stops.

Resettlement Activities

Hon'ble Sri V. Kurmayya, Minister for Rural Development, inspected recently the Employment Exchange at Mount Road. The M nister was taken round by Mr. S. A. Qadir, Regional Director of Resettlement and Employment and Mr. Nambiar, Regional Employment Officer and explained the methods adopted for assessing the aptitudes and abilities of the applicants sent to employers on requisition. The Minister evinced keen interest and appreciated the methods of maintaining man-power statistics. He expressed the view that more and more employers should come forward to use this Employment Service which will readily meet their man-power demands.

Firka Development Department

A synopsis of the important activities in the firkas and centres selected for intensive Rural Reconstruction work, during August 1948 is given below :—

Yerragondapalem Centre, Kurnool district.—Tournaments were conducted in various rural games and prizes were distributed to the winners. A night school has been started at Kolukula in Christianpalem. A reading room known as 'Jaihind Reading Room' was also started at Naidupalem.

Musiri Firka, Tiruchirappalli district.—Thirty charkas and 100 taklis have been distributed during the month. Five hundred chittams of yarn were collected from the spinners and sent to the A.I.S.A. A spinning competition was held during the Independence Day celebrations and about 100 people, including ladies, participated in the competition. Prizes were given to the best spinners. Fifty acres of land were brought under cultivation by tractor-ploughing. A post office was opened at Tiruvengamalai.

Gara Firka, Vizagapatam district.—From 15th to 22nd August, tree-planting was vigorously undertaken and trees were planted in all the important villages of the firka with the assistance of the Agricultural Staff in the Firka.

Palladam Firka, Coimbatore district.—The central library of this firka was opened during this month.

Nation building work in the selected firkas are going on apace. Much depends upon the initiative and enterprise of the villagers themselves. In the field of rural reconstruction self-help is the best help. Spoon feeding beyond certain limits may perhaps do more harm than good.

V :pandy Firka, Salem district.—Seventeen branch libraries to cater to the needs of the literates were opened during the month. Nine hundred and ninety-five tree-cuttings were planted to encourage green-manure. At Kondalampatti a school building at a cost of Rs. 13,000 was constructed with the help of the public. The Hon'ble the Minister for Firka Development visited Kondalampatti on 31st August 1948, and inspected the school building.

Alur Firka, Bellary district.—Two night schools for adult education have been opened in this month in the villages of Alur and Nitravatti. A rural uplift school was conducted at Alur by the Amelioration Department. A rural exhibition was conducted at Alur on 21st and 22nd August 1948. Sports were also conducted and prizes distributed.

Proddatur Firka, Cuddapah district.—Tree-planting work was done in several villages of the firka, the Grama S. va Sangam taking the initiative in the matter.

Polavaram Firka, West Godavari district.—There was an outbreak of epidemic throughout the firka. Preventive measures were taken by regular attendance to sanitation work in the affected areas. A cart-track measuring 26 miles has been formed by channel clearance. The breaches in one of the biggest tanks, i.e., the Kothur tank, have been filled up. Four thousand teakwood plants supplied by the Forest Department have been planned on either side of Polavaram-Kannapuram roads.

Kurnool Firka.—The streets of the villages have been got swept and were made clean. As cholera was prevalent in some other villages of the firka, disinfectant measures were taken where necessary. Inoculation was also carried out. Two illicit distillers were detected by one of the Village Development Officers of the firka and necessary further action taken. New night schools for adults in Gargeyapuram and Padidampad have been started during the period. Fifteen slates and 15 books have been distributed to the night-school going adults. Six new charkas have been introduced. Basket industry has been started in Gargeyapuram. Village games were organized. The Independence Day was celebrated. One poultry-farm has been organized in Kallur on co-operative basis. Grama Seva Sangams have been constituted in three villages and their duties regarding the upkeep of the villages in all respect were explained.

Payyanur Firka, Malabar district.—One Hundred cement slabs were distributed in this firka at cost price for the construction of latrines. Arrangements are being made to supply half a bag of cement also free of cost to these people to construct these latrines. During the Independence Day Tree-Planting Week, about 2,600 plants have been planted in this Firka.

Kadambalur Firka, South Arcot district.—The Independence Day was celebreated with all solemnity and enthusiasm in the Firka. Feeding of the poor was conducted by the philanthropic, and the Firka Development Department Staff have taken active part in it. Five new co-operative-credit societies have been newly opened and loans to the extent of Rs. 10,000 were also sanctioned for these societies. Two Panchayat Boards have newly been formed in this firka.

Dendulur Firka, West Godavari district.—The Hon'ble Minister for Firka Development visited this firka during the month. The Collector toured many of the villages in this firka, inspecting the Firka Development work and discussing with the villagers their needs and grievances. A co-operative Stores at Gopannapalem was organized to serve about 12 villages.

Malli Firka, Ramnad district.—The Deputy Director of Industries

visited the training centres in the firka, and made arrangements for the supply of tools and materials required. Independence Day was celebrated in all the villages. Large numbers of various kinds of seedlings were planted.

Kundah Firka, Nilgiris district.—Independence Day was celebrated on a grand scale. Tree-planting week was organized. Trees were planted at important places.

Kanupur Firka, Nellore district.—A new Co-operative Society was started at Chimudugunta.

Tellicherry Firka, Malabar district.—Villagers of Vadakambad have started the construction of Kuyyali-Mannayad road. Villagers are taking keen interest in this work. They have given lands required for the road free of cost.

Vellakoil Firka, Coimbatore district.—An elementary school was opened at Nadupalayam. The new building was constructed by the villagers. Two co-operative Credit societies, one at Nadupalayam and the other at Alampalayam, have been registered. The Independence Day was celebrated in a fitting manner. Trees were planted.

Ongole Firka, Guntur district.—Spinning competitions were conducted in two villages and prizes were distributed to the successful contestants.

Electricity Department

During August 1948, one extension costing over Rs. 10,000 and less than Rs. 30,000 was sanctioned by the Chief Engineer at an estimated total cost of Rs. 19,520.

2. Supply to 1,026 domestic services, 136 agricultural services and 45 industrial services was given during the month.

3. Work on the major schemes and extensions continued to progress.

Education Department

Secondary education.—A sub-committee in connection with the Re-organization of Secondary Education is now working on methods of examination and testing practical activities and on schemes of refresher courses for teachers.

The Secondary Education Board met on the 15th and 14th of August and considered the syllabuses relating to the new scheme of Secondary Education and the connected scheme of examinations.

Citizenship training.—A Guide book on Citizenship Training in schools has been published under the authority of the Director of Public Instruction. Copies will be made available from all agents for Government publications.

Besides the Guide Book on Citizenship Training which has been published, two more guide books, one on Social studies and the other on the Regional Languages are ready for publication.

General.—The Provincial Advisory Board met on the 26th August 1948 when the Hon'ble Minister for Education ascertained the views of representative authorities on the amendments to the University Act, and other pending legislative measures connected with education.

A special meeting of the Board for Nursery Kindergarten and Montessori Schools met on 2nd September 1948 and considered the need for revision of syllabuses for the training of teachers for such schools.

A camp conference of the Inspecting Officers of the Education Department was held at the Teachers' College, Saidapet and fulfilled a four-fold purpose of corporate democratic camp life and camp routine, conference and discussions on departmental subjects like Elementary Education, Secondary Education, Adult Education, Basic Education and Training of teachers, information to the Officers on several new subjects connected with education and visits to institutions working the new scheme of activities including demonstration of students' self-government in practice and the use of audio-visual aids in teaching. The camp was opened by the Hon'ble Sri T. S. Avinashilingam Chettiar, Minister for Education, on the morning of 4th September and was visited by Prof. Humayun Kabir and seven of the provincial Ministers on the 7th September and concluded with a tea party given by the Hon'ble Minister for Education to the Officers, conveners of the various syllabus sub-committees and other official and non-official helpers.

Labour Department

The Government have accepted the award of the Industrial Tribunal, Madras, in the dispute between the workers and the management of the East India Distilleries and Sugar Factories, Limited, Nellikuppam, South Arcot.

The Government have also accepted the award of the Industrial Tribunal, Calicut, in the dispute between the workers and the management of the Standard Furniture Company, Limited, Kallai, Calicut.

They have also accepted the award of the Industrial Tribunal, Calicut, in the dispute between the workers and the management of the St. Vincents Industrials, Calicut.

The workers of the Nazeeria Motor Service and the United Bus Service, Limited, Nellore, struck work from 10th to 14th September 1948 demanding bonus and reinstatement of retrenched workers. The Assistant Commissioner of Labour, Madras, proceeded to Nellore and brought about a settlement of the dispute. The strike was called off on the evening of 14th September 1948.

[First fortnight of September 1948].

> **There is no bravery greater than a resolute refusal to bend the knee to an earthly power, no matter how great, and that without bitterness of spirit and in the fullness of faith that the spirit alone lives, nothing else does.**
>
> —MAHATMA GANDHI

The Government of Madras have constituted another Industrial Tribunal consisting of one person, namely, Sri T. D. Ramayya Pantulu, Retired District and Sessions Judge, for the adjudication of Industrial Disputes in the districts of Madras, Chingleput, South Arcot and North Arcot with its place of sitting at Madras.

The Government of Madras have accepted the recommendations of the Industrial Tribunal, Madras, in the dispute between the workers and management of Caltex (India), Limited, Madras, and have directed that the agreement filed by the parties shall form part of and shall always be deemed to have formed part of the award.

The General Secretary of the Co-operative Societies and General Workers Union, Madras, has withdrawn the notice of strike issued by him to the management of the Strathie Co-operative Engineering Workshop, Madras.

Sri Satyanarayana Spinning Mills, Rajahmundry, remained closed from 15th to 23rd September 1948 on account of boiler inspection.

The Government of Madras have accepted the interim award of the Industrial Tribunal, Madura, in the dispute between the workers and managements of Cigar Factories at Tiruchirappalli.

[Second fortnight of September 1948]

Agricultural Department

The Agricultural department has been supplying on hire petrol pumpsets and oil engines with a view to assist the ryots to grow food crops in the off season under well irrigation. The concessional rate of hire charges in respect of oil engines is Re. 1 per day against the normal rate of Rs. 3 per day or Rs. 75 per mensem or Rs. 200 for three months. As regards petrol engine pumpsets the concessional rates are annas eight per day or Rs. 10 per mensem for periods of one month and more. The sanction for these rates will expire on 30th September 1948.

2. The Government have now examined the question of the continuance of these concessional rates. A hire charge of eight annas per day or Rs. 10 per mensem has been fixed in the case of petrol pumpsets which are allowed to be retained with the ryots beyond 30th September 1948 and Rs. 2 per day has been fixed for trailer pumpsets. In respect of oil engines the concessional rate has been fixed at Rs. 2 per day as the working charges for these engines have risen. These rates will remain in force for one year from 1st October 1948.

Fisheries Department in 1946—47

Deep-sea fishing.—Deep-sea fishing operations were initiated in the Province in July 1943 with a view to increase the catches of shark and thus ensure an abundant supply of shark liver to the Government Oil Factory at Calicut. During the year under report there were 35 deep-sea fishing centres in existence on the East and West Coasts. In addition to the four motor fishing vessels already purchased, four more vessels were purchased during the year from the Army Surplus Stores at Cochin. The total quantity of fish caught in the departmental centres during the year was 745,960 lb. The sale proceeds of fish amounted to Rs. 56,498.

Shark liver oil.—The total quantity of crude shark liver oil received in the Government Oil Factory at Calicut from the fish-curing yards and oil extraction centres was 75,591 lb., the quantity of standardized oil produced was 93,600 lb. and the quantity of Madras Government Brand shark liver oil sold was 102,087 lb.

Fish-curing yards.—There were 116 fish-curing yards at the end of the year as against 115 last year. The total quantity of fresh fish brought into the yards was 2,472,305 maunds, salt issued was 384,665 maunds and cured fish removed from the yards 1,541,123 maunds.

Fish manure industry.—The Special Officer, Fish Manure Industry, appointed by the Government arranged for the production of fish manure by improved methods in five centres—four on the West Coast and one on the East Coast—and the product was found to be free from sand and to have three to four times the nitrogenous content of the local commercial fish manure.

Fish preservation and transport.—The Government have sanctioned the installation of ice factories-*cum*-cold stores for the preservation of fish and also the purchase of insulated vans for the transport of fish. Six insulated motor transport vans have been already purchased and have proved valuable to the fishermen who till now were suffering from lack of adequate and quick transport facilities. A total quantity of 274,991 lb. of fish was transported by the vans from November 1946 to the end of the year under review and a sum of Rs. 6,459 was realized as transport charges.

Fishery marketing.—The Government appointed a Fishery Marketing Officer for the purpose of effecting a survey of the existing marketing conditions of fish, fishery products and improvements in the Province. A rapid survey of the existing marketing conditions of the following towns were completed :—

Ootacamund, Coimbatore, Tiruchirappalli, Madura, Vellore, Cuddalore, Tuticorin, Palamcottah, Koilpatti, Papanasam, Mettur, Erode, Salem, Kasaragod and Mangalore.

The improvements necessary to the markets at these places have been suggested to the municipalities concerned, so that fish may be better displayed and sold under hygienic conditions.

Demonstration and propaganda.—The Rural Fishery Demonstration Units continued to survey waters, contact interested fish farmers and give them fish seed, advice and help. On the whole, 2,260 pieces of water with an area of 101,190 acres were surveyed. Nearly 66,000 seeds of different species of fish were supplied to 119 parties. Technical advice was given to 830 parties. The information-*cum*-propaganda Unit continued to answer enquiries from the public on various matters concerning fish culture.

Socio-economic activities—Education.—There were 55 Fishery Elementary Schools on the West Coast and three on the East Coast during the year under review. The total number of pupils that attended the fisheries schools at the end of the year was 9,905 of which 5,712 were boys and 4,193 were girls. The supply of free mid-day meals to fisher-children attending the fisheries schools was continued till 1st April 1947. This served to ensure better attendance in the schools and raised the general standard of health.

Co-operation.—There were 79 Fishermen Co-operative Societies on the West Coast as against 60 societies last year and 3 Fishermen Co-operative Societies were registered on the East Coast during the year. In addition to the supply of essential commodities such as food grains, sugar, kerosene, etc., a few of these societies purchase yarn, sail cloth, salt and other requirements of their members.

Finance.—A revenue of Rs. 14·73 lakhs was realized as against Rs. 12·51 lakhs in the previous year. The expenditure incurred was 20·67 lakhs as against 18·52 lakhs. The increase in the expenditure was mainly due to the revision of scales of pay of the non-gazetted staff of the department, rise in transport, freight and other incidental charges.

Miscellaneous

Control has been reimposed on Cotton Textiles recently. It has been tentatively decided that one-third of the allotment of cloth for the Province may be distributed through Co-operative Societies and two-thirds through licensed trade channels. There will be licensed retail shops or Co-operative Stores to serve rural areas.

SCHEMES AND PROGRAMMES

Irrigation Schemes in Madras

More food production is one of the major objectives of the Government. To this end they have a vast programme of irrigation development. Recently the Chief Engineer for Irrigation threw more light on the short term and long term plans of the Government in the course of a broadcast. Extracts from the broadcast are given below:

Our pressing problems of the present day are food, clothing and housing for the common man. We have to grow food on land to sustain and nourish us, produce clothing to clothe us, a produce both of land and of industry, and build houses to give us shelter from the sun and rain, a product again of land giving us materials, and industry putting them into shape. Increase of food can be brought about by increasing the yields per acre, by introducing mechanical methcds, and by increasing the area under cultivation. Just as power enhances the output of industry, and multiplies the power of an individual irrigation increases the produce from land, as compared to an unirrigated land makes it independent of seasons and vicissitudes of the monsoon. In the ultimate analysis, everything has to be produced in a raw shape from land, and its value increased by application of power to transfer it into more valuable forms. To build up the wealth of a country, and to increase the national income and to make all world's goods available to the common man, we must get more out of nature from land in one of the several ways in which nature will give it, namely, by application of irrigation water to the land. For its transformation into the richer products we want power. So powers and irrigation water are two main concommitants of advancing civilization. All others depend on it just as we want petrol and an engine to produce the power in a motor car, the development of a country without development of the irrigation and power resources would be unthinkable.

Power may be obtained in various ways, from coal, oil, steam and by splitting the atom. It can also be produced by making water fall from a high to a low level suitably controlled. The advantages of a project combining both power and irrigation is doubly advantageous in that it solves two problems at the same time. B sides power so produced is in many cases likely to be cheaper than power produced in other ways.

Where We Stand

Let us now examine where we stand in relation to this food problem. We in Madras, have been short of food for several years now. Our position was much the same perhaps as in the 50s of the last century, when famines swept the land in quick succession and before the large canal projects of the Cauvery, the Godavari and the Kistna was carried out. Our population has been expanding by leaps and bounds. Before the war, we were importing nearly 6 lakhs of tons of rice from Burma when Burma was prosperous and had a surplus to export. The war gave us a rude shake up. Import ceased and for these five years we have been living a hand to month existence, and in spite of a vigorous drive for growing more food we are still importing over 6 lakhs of tons to maintain even our admittedly low level of 8 oz. ration for adults. We are sending about 16 crores of rupees outside the province every year to other provinces in India which have a surplus to export and to for ign countries outside in India. The food position has deteriorated even more after India, was divided with the Pakistan taking away large food producing areas, West Punjab and Sind, and we in Madras have to produce an additional 2 to 3 million tons to add to an existing production of about 6 million tons within the next decade, if we are to keep out head above water and each one of us has to have a square meal.

Background

One of the ways of increasing food production is by bringing more areas under irrigation. Irrigation of a dry land produces three times as much food as that on an unirrigated land. If we can treble the produce from land it is obvious that a considerable addition to our resources must result and the results would be more certain than if we depended and looked to the sky for timely rains.

Almost the whole of Madras Province (east of Western Ghats) consists of area where rainfall is greatly in deficit for bringing up the crops to successful maturity. Even in areas with high rainfall its distribution is extremely unsatisfactory and even in those areas the help given by artificial irrigation would go to increase the produce from land. There are areas with only about 20 inches of rainfall and the bulk of the country has only a bare 30 to 40 inches. An additional quantity of water varying from 20 to 60 inches is required to produce a good crop of rice and rice is our staple food. So it is obvious that more than any other country our food economy which rests to a large extent on rice, requires a full and complete development of irrigation sources in this Province.

The irrigation programme is therefore to develop the available resources taking note of the large and natural inequalitie, in the monsoon and turning the water available in the various rivers to the best use to supplement the natural rainfall. Luckily Madras has still some large rivers which are not fully harnessed. The Godavari and the Kistna are still sending nearly 90 per cent of their waters to the sea unused. The Cauvery has been turned to better account but even there, there is some surplus waiting to be developed. There are besides innumerable small rivers and streams some fully utilized and some partly utilized. The irrigation programme of Madras aims at harnessing these resources and turning them to good account for the use of the common man.

According to the nature of sources developed, the quantities of water available for development and the area commanded by the scheme, the size of the scheme varies. No part of the country which has any resources worthy of development should lag behind another. Developing areas all over the province makes for self—sufficiency in every small unit, eases

food transport problem, distributes the wealth and makes full use of available manpower and finally enhances self-respect.

Then there is a long-term plan and a short-term plan. While a long-term plan comprises of schemes which will take years to mature and people cannot afford to wait, a short-term plan of development is plann d to fill the gap between the present and the time that the long-term plan of major projects come to fruition. There will be no waiting period and the wealth of the country will be built up gradually and the intensity of the food cricis relieved l ttle by little, until large projects catch up the leeway.

Short-term Plan

With the above facts in the background, a programme of irrigation development has been built up. The short-term plan goes in the name "Grow More Food Schemes." This part of the programme is to be implemented in about 5 to 7 years and covers the whole face of the Province and almost every scheme considered feasible and the cost of which is less than 20 lakhs is included in the programme. The programme consists of three phases, the first phase consisting of works costing little or no expenditure and immediately effective. These include the grant of additional sources under existing canals and channels and bring under irrigation unirrigated land with a minimum of effort. The second phase consists of works costing moderate amounts in which the State gets a return adequate to the use of money from loan funds and pay interest charges thereon. These naturally consist of works bigger than those mentioned under the first phase and which are beyond the capacity of the ryot. The third phase of work consists of what in the commercial sense is call d u ıremunerative works, the money for which has to be found from current revenues, as the financing of them from loan funds would lay a perpetual burden on the State by way of interest charges. In respect of the last class of works, the Government of India grant a subsidy to local Governments to the extent of half the unremunerative portion of the outlay. In ev ry case people are not affected, as any scheme considered worth while is comprised in one or the other of three phases of the programme.

The Grow More Food Irrigation programme or the short-term plans have been in operation for some years now. About 140 schem s costing about 2·1 crores have been sanctioned to the end of March 1948. The future programme contains more than about 160 schemes and includes all districts. The schemes in some districts are not as numerous as in other areas, due to the existence of zamindari system covering parts of the district. In some districts natural resources have been so fully developed that there is little scope for new schemes because water is not available every year. For irrigation schemes, we must have surplus available for utilization nearly every year and, in some systems, irrigation is so fully developed that it is only in years of abundant rainfall, possibly once in three or four years, that there is any surplus at all worth mentioning, and the probability is that, in these years, the existing areas do not need much of assistance. In such areas, it has not been possible to put up any large schemes of value.

In all the different phases of the campaign, nearly 4 to 6 lakhs of acres have been newly brought under irrigation and the expansion continues still. More works are being added to the programme and schemes not found feasible on investigation are dropped. The programme is under frequent and continuous scrutiny. The food scarcity overtook us at a time when the technical personnel in the department were greatly depleted and large and additional demands were made on them. We are struggling hard with the problem of getting suitable technically trained men and the difficulty is almost nsuperable in regard to the lowest ranks. It is not a mean achievement therefore that with all the difficulties we are trying to keep up quite a large programme of Grow More Food schemes and in the category of subsidized works alone, are more than 200 schemes expected to bring an additional area of 2·5 lakhs of acres newly under irrigation.

Long-term Plan

Now, I come to the long-term plan or the major projects which have a definite place in this business of Growing food and adding to the material wealth and resources of our country. These schemes go by the name of "development schemes" and generally include all works costing over 20 lakhs. They amount to a very considerable number. There are about 50 schemes for irrigating areas generally more than 10,000 acres. Besides these, there are six schemes intended to irrigate more than a lakh of acres. There are schemes like the Tungabhadra and the Ramapadasagar for the irrigation of 3 lakhs and 2·5 million acres in the Ceded districts, and in the Circars. In my charge are the Kistna-Pennar Project, the Lower Bhavani Project and the Gandikota Project to which may have to be added the Vamsadhara Project in the Vizagapatam district. The Ramapadasagar and the Kistna-Pennar are mammoth schemes which will bring under irrigation nearly 5 to 6 million acres covering the whole of the East Coast adjoining areas in eleven districts from Vizagapatam in the north to South Arcot in the south including also the Ceded districts, Kurnool, Cuddapah and Chittoor. These two projects overshadow every other project in this Province. Between the two, they will use up nearly 200 c ıres of rupees while all other big and small projects may cost only about 50 crores. Time does not allow me to give a detailed description of these mammoth projects. The Kistna-Pennar Project under my charge is expected to cost nearly 78 crores. It consists of two reservoirs, one in Kurnool on the Kistna near Siddheswaram where the river pierces through the Nallamalai range of hills and the other on the Pennar at Someswaram 40 miles west of Nellore. The water of the Kistna reservoir will be connected to that on the Pennar by a canal cut through the dividing ridge between the two rivers. This canal will carry nearly a lakh of cu ecs and will be one of the largest achievements in the world, when it is completed. The waters of the Kistna reservoir will reach up to the Kurnool town and just prevent its getting submerged. The waters of the Pennar will similarly reach up to the Cuddapah town. The Kistna reservoir will be about 1½ times the size of the Mettur reservoir and the Pennar reservoir will be nearly four times that of Mettur. Between the Kistna and the Pennar, large areas would be brought under irrigation in Kurnool and Cuddapah districts and if this is feas ble a canal will run to fill the Gandikota reservoir branching off from the Kistna-Pennar canal. On the north, the Pennar reservoir will have a canal to irrigate some lakhs of acres in Nellore district running as far as Tangatur. Down on the south will be one of the largest canals in the world, running for a length of nearly 300 miles through Nellore, Chittoor, Chingleput and South Arcot districts. It will run on the foreshore of the Poondi reservoir and Madras will be assured of abundant supply of drinking water. The canal

will finally fall into the Vellar and meet the waters of the Coleroon which are now passed into it from the Lower Anicut. The Project will irrigate nearly 2·5 to 3 million acres most of which will be first crop and will when completed be truly a link between the Kistna and the Cauvery and if I may say so, also a link of friendship between Tamil and Andhra country. Large blocks of power will be developed to the tune of hundreds of thousands of Kilowatts greater than any developed so far in Madras except those forecasted for the Ramapadasagar Project and provide all the amenities and the wealth that flow from the development of enormous amounts of power.

I have already referred to Gandikota Project. This project has been investigated and is intended to irrigate about a lakh of acres in Cuddapah district. In some respects, it is incomplete. With the possibilities of bringing a canal from the Kistna which is under investigation as part of the Kistna-Pennar project the main features of this project have to be modified to suit this new proposal. It might possibly mean that the site of the dam may have to be shifted downstream to enable this Kistna canal being received into the reservoir. Investigations in progress are likely to indicate very soon the manner in which this scheme can be finalised and taken up for execution without loss of potentialities likely to result from the construction of the Kistna reservoir.

The Lower Bhavani Project is another large scheme which has been sanctioned and the execution of which, has been sta ted quite recently. It is intended to irrigate about 2 lakhs of acres from a reservoir of the size of about a third of the Mettur reservoir built at a place about 20 miles from Mettupalayam. Irrigated cotton will be grown on the lands under this new reservoir in rotation with food crops. The project is expected to cost about 7 crores and to be completed in about six years. It should add considerably to the material wealth of the country that it commands and should add not only to food but also the needs of clothing of the large population in the province.

The Tungabhadra Project under execution in Ceded districts in charge of a Special Chief Engineer is expected to cost about 17 crores and to bring under irrigation about 3 lakhs of acres and consists of a dam across the Tungabhadra river near Hospet and a reservoir a little bigger than Mettur reservoir. The work is a joint venture with Hyderabad, the Madras and Hyderabad Governments bearing half the cost of the dam and building their own half. Progress on the work is a bit slowed down on account of the Hyderabad situation but as soon as this clears up the work is expected to proceed speedily to completion. The project when completed will irrigate about 3 lakhs of acres in Bellary and Kurnool districts.

Then there is the big Ramapadasagar scheme. It will be the second largest dam in the world (across the Godavari) about a mile in length and full 400 feet about the rock lying nearly 200 feet below the bed and about 30 miles above Rajahmundry. The waters of this large reservoirs will lap at the feet of Sri Rama at Bhadrachalam. Two large canals will take off—one on the north going to Vizag Harbour and the other on the south running as far as Ongole and borders of Nellore district, crossing the Kistna. About 2·5 million acres of land will be irrigated large part of which will be 2nd crop, and the scheme is expected to cost about 120 crores. Enormous amounts of power will be developed.

Increased Milk Production

Five-year Plan

A proposal for a Five-Year Milk Plan embodying specific projects destined to bring about an over-all increase of milk production of 758 lakh maunds in all Provinces over the five-year period, has been drawn up by Dr. Zal R. Kothavalla, Dairy Development Adviser to the Government of India.

The plan in general aims at bringing about improvements with regard to cattle and milk by elevating the lot of the cultivator-milk producer through the improvement of his cow and organizing the production, handling and marketing of milk on an economic and satisfactory basis.

The plan has been drawn up in five parts. Part I brings out the present position with regard to cattle and cattle feeds, milk and milk products and other cognate matters, such as dairy education, research and equipment. Part II indicates the possible ways and means of improving the da ry industry of the country. Part III gives an idea of what constitutes the Five-Year Plan. Part IV indicates the work each Province will have to do to fulfil the Plan and Part V contains the proposals for the implementation of the Plan.

In the proposed Plan the following eight specific projects are envisaged :—

(1) Milk-cum-bull breeding farms, (2) "Small-Holder" milk production farms, (3) Colonization of dislodged urban cattle, (4) Artificial insemination, (5) Cross-breeding of inferior milch cows in hilly regions, (6) Co-operative milk unions, (7) Co-operative rural creameries and (8) Production of green fodder and silage.

The programme of work under each project is extended over 5 years. For the successful execution of the different projects a total of about 6,400 technicians will be required over the 5 years' period. In addition equipment such as steam boilers, refrigerators, etc., will have to be imported and their cost is estimated at Rs. 10 crores.

Religion cannot be saved by questionable methods.

—MAHATMA GANDHI

Problems and Achievements

Planning for Employment

By S. V. RAMANUJAM

Planning for employment is an integral part of any national scheme of industrial development. For nearly a decade now, we have been experiencing in this country the evil results of economic maladjustment. Many millions of our people have not had the barest necessaries of life; many more millions have had employment which, however, did not give them enough to maintain a decent standard of living. A re-adjustment of our economic structure is a paramount necessity if we are to raise the standard of living. Planning for production must necessarily mean planning for employment. Mass unemployment is a danger to peace.

Employment Service

The Employment Service has established beyond doubt its usefulness as a machinery for the efficient and scientific organization of industrial and other employment. It will serve as the basis for plans of social security. Its object is to open up the prospect of increasingly gainful employment for our people and thus to bring about an improvement in their standard of living. But employment can alleviate unemployment only indirectly. A well-organized Employment Service plays a vital role in stabilizing the economic system. Industries are subjected to a process of constant change, but they can safely depend upon the Employment Exchanges for the information necessary to plan further improvement. The Employment Service has up-to-date information regarding the volume and structure of employment, is in close touch with employers and workers and is technically competent to deal with all questions of vocational guidance and selection and the distribution and transfer of labour as required by the industries. In countries where the Employment Service had developed it has been made responsible not only for the absorption into industrial life of the employable unemployed, by analysing their abilities and qualifications, but also for registered workers already in employment. Close collaboration will have to be maintained between this service and the training centres, since the former is in the best position to study where there is a shortage of workers and what qualifications are needed to fill the available vacancies, and arrange to place the workers who have been trained or retrained. Close co-ordination has to be effected between the Employment Service and industry in order to improve the economic stability of the country. There should be a gradual extension of the functions of the Service so that it could inprove and control the employment market. The Employment Service will serve as the pivot around which the industrial policy of this country should revolve, thus facilitating production, organization of vocational and technical training and mobilisation of labour resources. In short, this organization should function in close touch with industrial life because its activities are directed to meet the needs of industry.

Statistical Survey

No planning for any of these essential developments will be of any avail unless a proper statistical survey is made. As the International Labour Organization has said, "in general, employment and unemployment and labour force statistics should be based on standard definitions, should cover (i) all branches of economic activity, (ii) all persons employed and unemployed who have jobs or who are seeking work irrespective of age, and (iii) all industrial statistics—statistics should show changes in total employment and in each of the industry groups. The unemployment statistics should be classified under industry and cross-classified by age, sex and duration of unemployment in the various economic regions. The data so collected should be able to assist in determining the extent, trend, characteristics and causes of unemployment, and to meet the new problems set by the progress of economic development." The statistical survey will be able to throw light on the volume of frictional employment in the regions. It is noticed, specially in India, that the ordinary worker seldom remains continuously in any one job. The fall in production and the attendant economic maladjustment may perhaps be attributed to this fact. The Employment Service should play a vital part in wiping out frictional employment and also aim at greater productive employment.

Continuous Employment

How could the State avoid frictional employment and ensure continuous employment? It is said that the State should aim at dynamic employment which entails the maintenance of all those already placed in jobs. This could only be done by assessing the aptitudes of candidates and by providing vocational guidance before placing them in employment. Nowadays, nobody doubts the importance of vocational guidance because choosing a career has become a very difficult task, indeed, and is becoming increasingly difficult as a result of the almost infinite variety of specialisation demanded by the rapid progress of industrialisation. Moreover technical inventions and scientific discoveries open out new possibilities on such a large scale that it is b wild ring for any one to make the right choice without expert assistance. Employment Service offices are tanned by experts who can properly evaluate abilities and find the right jobs.

A highly important factor that many industrialists overlook is the selection and training of youths for particular jobs. Investigations have shown that many employees are quite unsuited temperamentally and physically for particular occupations. It is, therefore, necessary that employers in our country should introduce a series of progressive tests during the training period, thereby obviating the risk of placing round pegs in square holes. It is here that co-ordination is most needed between the industrial planner and educational planner. The Employment Service should be able to advise every student or his parent in the various regions in planning out the youth's career. There is much leeway to be made up in providing the right kind of training and in finding the best men for jobs, and the success of this effort will depend in no small measure on a closer collaboration between industry and those in charge of education.

Shortage of Technicians and Skilled Workers

Of all bottle-necks impeding productive employment the most serious one

is the shortage of technicians and skilled workers. This shortage cannot be made good through the absorption into industry of the registered unemployed for amongst them are included workers changing from one job to another, relatively unskilled workers, and the rest possessing redundant skills. At no time was India faced with similar shortage in as acute a form as at present. Still, the age-old practice of taking up raw persons and allowing them to work in factories to learn by experience in haphazard fashion, is being followed. To meet the needs of industry satisfactorily it is necessary that a scientific and rational method of imparting training to workers at various technical training centres should be evolved. Industry needs the services of every available worker. The time has arrived to concentrate "on the improvement of training and more production". The present Training Schemes, although conceived during the War, should be adapted to the changed needs of industry. Plans should be prepared, in consultation with Indian industrialists to utilize the existing training centres for mobilizing the skills and techniques available in the country instead of frittering them away in unimportant pursuits.

Apprenticeship training should be made compulsory, and opportunities should be provided in ample measure to improve the skill and technique of every trainee passing out of the centres. The Employment Service Organization may be charged with the task of assessing the employment position in each factory or workshop in relation to capital outlay and productive capacity so as to supply the requisite personnel. With the object of increasing the mobility of labour and facilitating the maintenance of "full employment", greater attention has to be paid to the training of workers and to the re-training of persons for alternative jobs. Training Schemes should be modified and improved so as to accelerate industrial development which will be possible only when opportunities for productive employment are provided.

Conclusion

Planning for employment, therefore, covers a study of the availability of proper "man-power", providing the requisite training for employment, and direction and re-distribution of man-power consistent with the needs of particular industries and industrial centres. The Employment Service can assess the country's man-power and serve as the machinery for facilitating the initiation of important socio-economic measures. The persistence of unemployment at a time when the country requires the harnessing of all resources to productive work is indeed a paradox. There is no institution better fitted to tackle this problem than the Employment Service. For the future planning of industry on a scientific basis and for preventing unemployment to the maximum extent possible, it is essential that the Employment Service should be developed, co-ordinated and integrated with the economic development of the country.

Helping the Agriculturists

Role of Land Mortgage Banks

One of the steps necessary to improve agriculture is the provision of Finance. The ordinary agriculturist frequently finds it difficult to find funds to keep agriculture going in an efficient manner. Hence the organization of Land Mortgage Banks was brought into existence in 1925. Since then these banks have done useful work. More details are given below.

There are at present 119 primary Land Mortgage Banks and they are financed by the Central Land Mortgage Bank at Madras.

Long-term loans are issued by these banks on the security of agricultural lands situated within their area of operations. Loans are given for repayment of prior debts or for improvement of lands or for purchase of lands in special cases to effect consolidation of holdings. Improvement of lands includes sinking and construction of wells and other sources of irrigation, construction of bunds to ward off submersion, important works on the land, purchase of agricultural machinery including electrical or oil Engines, motors and pumps. Any person over 18 years of age who is competent to contract and owning lands in his own right, i.e., having occupancy right either as a Ryotwari Pattadar or Zamindari Pattadar is eligible to take loans. The lands offered as security for such loans may be wet, dry or garden lands under regular cultivation. Borrowers may also offer house properties situated in municipalities and major panchayats commanding good rental value as additional security for the loans.

Loans are sanctioned only for members. The value of each share is generally Rs. 10 and every borrower has to take shares to the extent of five per cent of his borrowings. The individual maximum borrowing power is generally Rs. 10,000 and in special cases the maximum is fixed at Rs. 15,000. Within this maximum an agriculturist may apply for the loan required by him. There is no minimum fixed for a loan as it is the intention that Land Mortgage Banks should cater to the needs of the small ryots. Loans are issued on the first mortgage of unencumbered agricultural lands up to a maximum of 50 per cent of their value. The valuation is done by the directors of the bank and officers of the Co-operative department on the basis of pre-war sales statistics. The income from the land and the income from all other sources should be adequate to meet the normal family expenditure, the kist and other charges

on the land and the annual instalment on the loan. The basis on which the Land Mortgage Bank Scheme is planned is that by a loan from the Land Mortgage Bank a member should be able to liquidate his numerous prior debts and be free to pay back the bank loan in easy instalments from his annual income and not having to answer numerous creditors all the year round. The loan is repayable with interest at 5¼ per cent in 20 annual instalments. The mode of repayment may either be equated instalment by which the borrower will be required to pay a fixed sum every year for a period of 20 years or equal instalments by which he will have to pay 1/20th of the loan amount and the interest on the outstanding loan amount. To cite an instance, a borrower who has taken a loan of Rs. 1,000 has to pay Rs. 81–15–0 every year under the equated instalment method. This includes both principal and interest. Under the equal instalment system, he has to pay annually a sum of Rs. 50 towards principal plus interest at 5¼ per cent on the amount outstanding from time to time. As long as the member regularly pays the loan instalments and observes the other conditions of the loans the bank is precluded from recalling the loan within the period of 20 years. But the member may repay the loan either in full or in part in advance of the demand and derive full benefit of such payment.

How to get a Loan

The agriculturists, who are in need of loans may approach the nearest Land Mortgage Bank and inform them of their requirements. The Secretary and Supervisor of the Land Mortgage Bank would be glad to help an applicant in furnishing the required details and explaining what are all the documents that will have to be filed to satisfy the Bank about the correct title to the land. When the bank tells you that some records or statements have to be secured do not imagine that the bank is unreasonably worrying you. It is in fact helping you to perfect your title, for the property and safe-guarding your own interests and your descendants. All the documents in your possession such as sale deeds, discharged mortgage bonds, rough pattas, kist receipts, etc., may be given to the bank so that it may satisfy itself about your title to the lands offered as security. The aim of a Land Mortgage Bank is to see that the borrower discharges all his debts with the help of the loan so that his only liability may be the debt due to the bank. The applicant should therefore disclose all his debts due by him secured or unsecured. But the borrowers are allowed to keep alongside with Land Mortgage Bank loans short term loan already taken from a credit society, Government loans or usufructuary mortgage loans, on the mortgage of properties. Other than those proposed to be offered as security to the Land Mortgage Banks.

Land Improvement Loans

There is a common criticism against Land Mortgage Banks, that they have been giving loans mostly for unproductive purposes. Of late, the banks are extending their activities by way of financing land improvements and developments. The bulk of the agriculturists consists of very small land holders and they cannot afford to invest large sums on major improvements like repairs to channels, small productive irrigation works, etc. But by collective or joint endeavour this may be possible. Some 5 or 7 ryots may pool their loans together and carry out some major improvements for the common benefit of all of them.

Secondly the importance of electrical power in its application to agriculture industry is also gaining familiarity with the ryots. The Government have schemes to extend the electrical power to the rural areas so that electrical energy may be used for agricultural purposes. Land Mortgage Banks afford the necessary facilities for long term finance. The agriculturists may avail themselves of these facilities for installing electrical pump sets for baling out water from wells for irrigation purposes. If electrical energy is utilized for agricultural operation, the agricultural industry is bound to be economic.

Conclusion

The Land Mortgage Banks are thus encouraging the habit of utilizing money for productive purposes. The banks will afford necessary facilities to the borrowers in securing electric pump sets from the firms at Madras. The Central Land Mortgage Bank has compiled information regarding the firms dealing with pump sets and arrange for the quick delivery of this machinery. Further where the agriculturists desire electrical connections for agricultural purposes they may send up applications through the banks of which they are members. The Registrar of Co-operative Societies will then recommend such applications to the Electrical Department and request to take action to arrange for the supply. In these days, when scarcity of food is so much prevalent it should be the efforts of all concerned to step up production and when the Land Mortgage Banks are affording necessary facilities in this behalf, it is up to the agriculturists of our province to avail of them. In an Independent India, every one is expected to work hard and enhance the national wealth of the country. The Land Mortgage Bank system in this province by seeking to help the agriculturists with long term loans at cheap rate of interest repayable in easy instalments, helps the redemption of agricultural indebtedness and the exploitation of the natural resources for the incerased well being of the country's population.

RURAL TOPICS

Rural Reconstruction

Everybody now knows about the Government's Firka Development plans. One of the basic conditions for the success of the plan is the availability of trained workers. The Government have made provision for this. There is the Tamil Nad Grama Sevak Vidyalayam in Madura district where rural reconstruction workers are trained. Recently at the inaugural ceremony of this institution Sri J. C. Kumarappa referred to the Gandhian ideals of rural reconstruction. In the course of his speech he said:

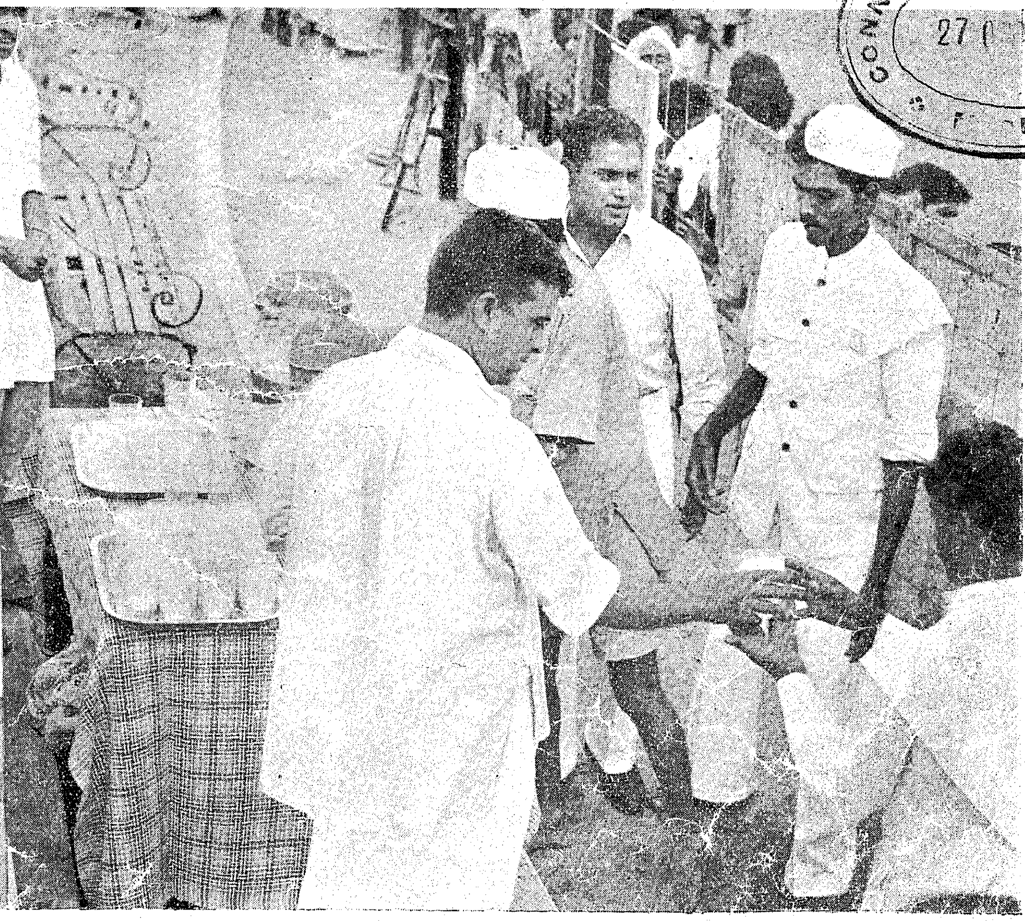
Firka Development Plan aims at educating the residents of the firka on proper lines. The goal to which we work is to attain a society based on Truth and Non-violence. Gandhiji used to analyse everything with a

INAUGURATION OF PROHIBITION IN THE CITY

CONN... 27 OCT 1948 MADRAS

Premier inaugurating Prohibition in the City. The picture shows him addressing at the Corporation Stadium.

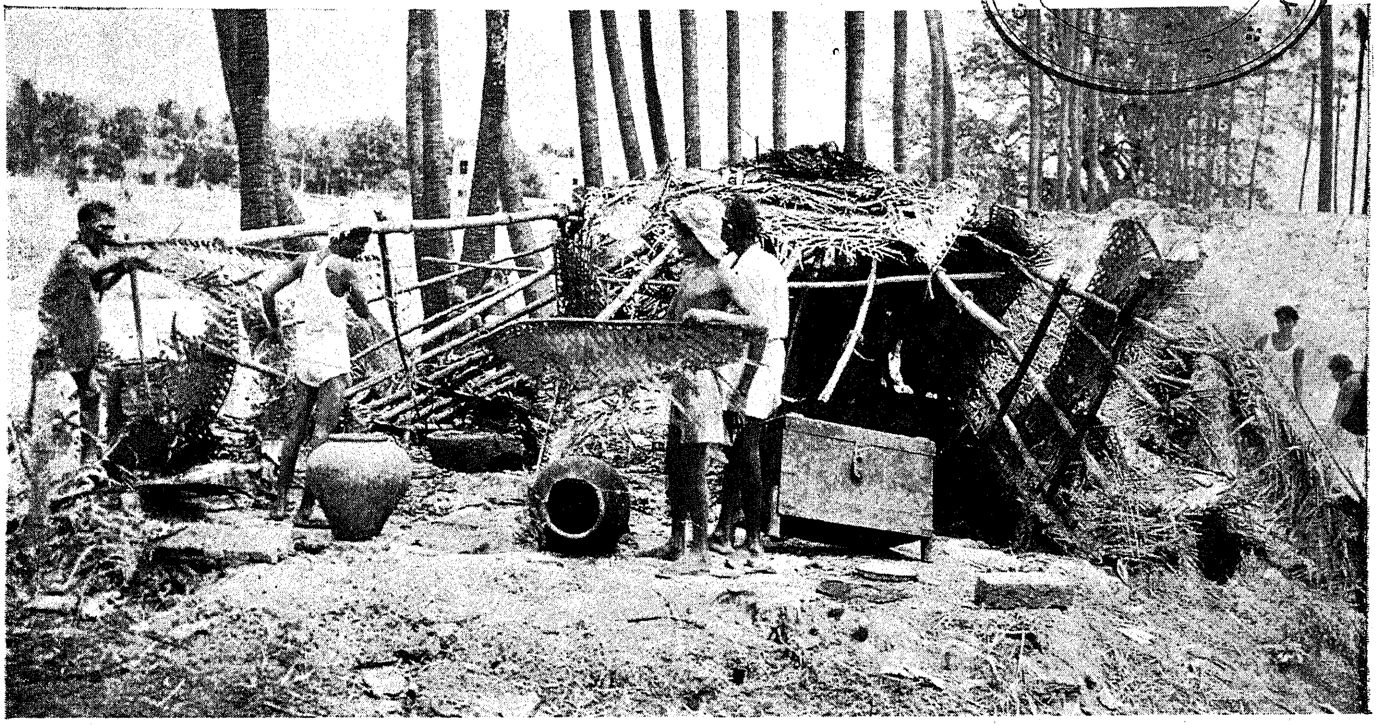
CONNEMARA PUB... 27 O... 194... ...RAS



(Left) *Sri N. S. Krishnan singing a prohibition song.*

(Right) *Milk is being distributed to ex-addicts.*

IN THE WAKE OF PROHIBITION



Picture shows—*A toddy shop being dismantled following the introduction of prohibition*

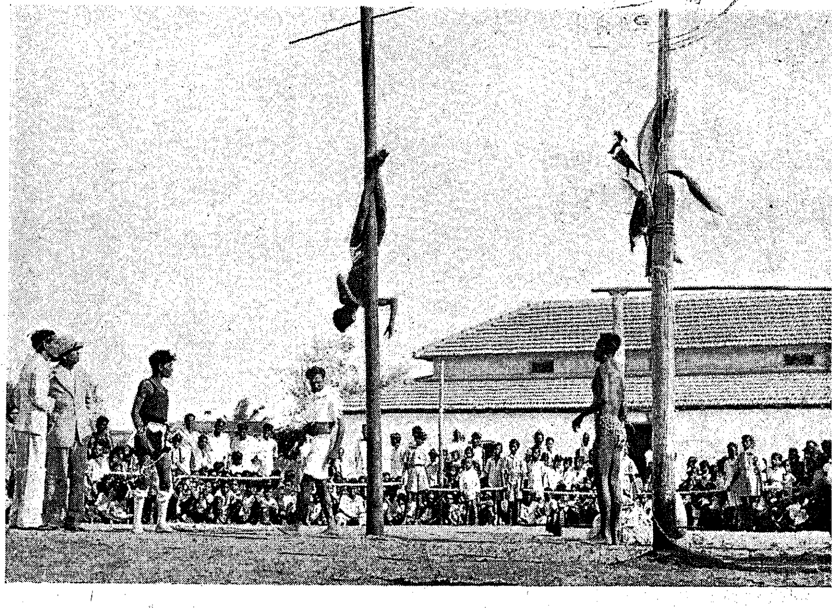
CONNEMARA PUBLIC LIBRARY
MADRAS

Drink demon is being carried to its journey's end

AMELIORATIVE ACTIVITIES—RANDOM GLIMPSES

Hon'ble Minister for Prohibition laying the foundation stone of a Reading room sponsored by a Gramasangam in Coimbatore district

PUBLIC LIBRARY

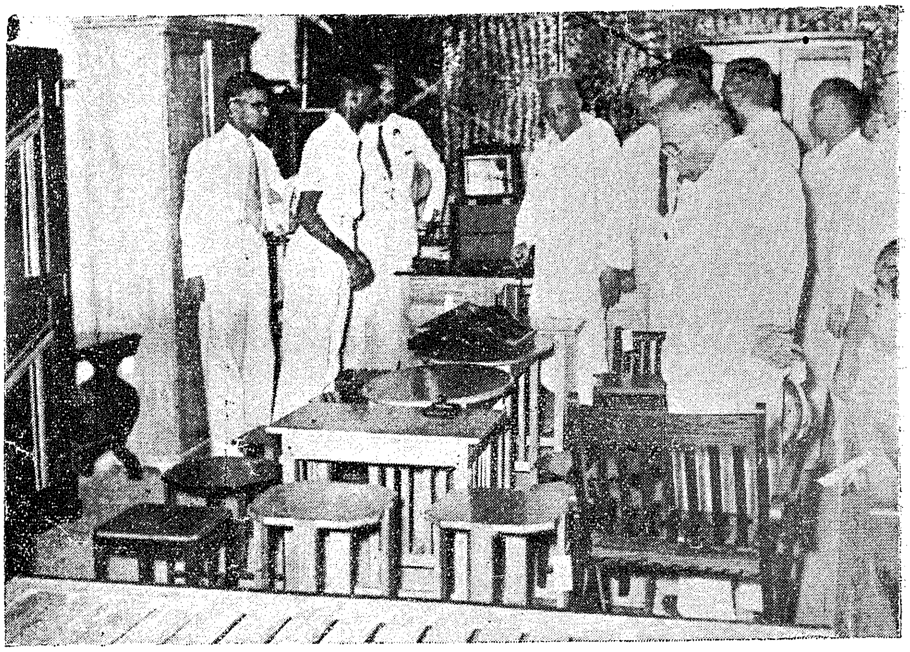


Physical feats by Villagers in Coimbatore district

Dance by girls in Salem district organized by Ameliorative staff

EX-SERVICEMEN ARE DOING USEFUL JOBS

"The products of your Co-operative Timber works compare favourably with the best I have seen" observed the Food Minister when he inspected recently the Co-operative Timber and Metal Works for Ex-servicemen at Olavakkot in Malabar district

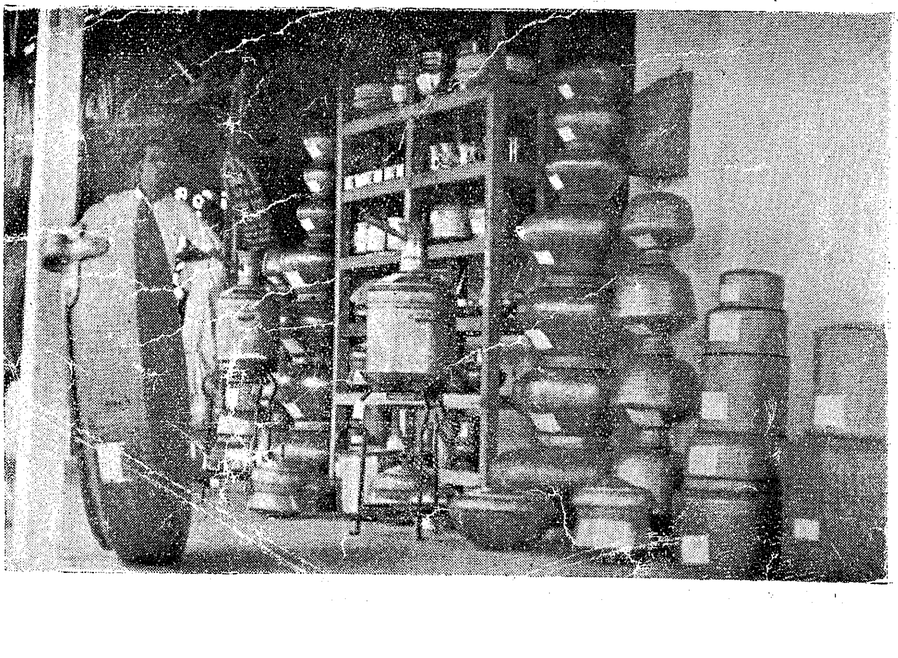


CONNEMARA PUBLIC LIBRARY
27 OCT 1948
MADRAS

Brass boilers are in great demand and the Metal Works is known for their fine products

CONNEMARA PUBLIC LIBRARY

A section of the show room of the ...bar Co-operative Metal and ... Works showing articles of ...tility



measure of Truth and Non-violence. At present, in our lives, untruth and violence prevail to a very great extent, not only in our country but in the world at large. Gandhiji through the programme of prohibition, Harijan Seva, Go-seva, Village industries, Charka, Hindi Prachar and the like wanted to usher in a new state based on Truth and Non-violence. Many forget the basic principle behind the various constructive programmes.

A drunkard throws away his hard earned money in drinks. The money should have been used to feed and clothe his family. So by his act he commits great violence and untruth leaving apart the social disorder created by intoxication. He becomes an animal in the drunken state. But if you study our daily transactions deep enough, you will know that we commit even more violence and untruth than the drunkard himself. For example, you buy milk from a poor villager. He brings and sells the last drop of milk from his cow. His children may have been denied the nutritious food. Why does he sell them ? For money, and that money is misused. Now do we see how sinful it is to buy such milk, immaterial what price you give him ? In Madras and other cities we see the cow brought to our very door and milked. Its calf would have been dead long ago due to under-feeding but the milkman stuffing the dead calf presents it to the cow. The dumb animal licks the false calf and yields milk. What is this other than deceit and himsa ? Has not the buyer a hand in it ? Here we commit a greater sin than the drunkard himself.

Proceeding he asked the basic school children to tell the difference between a monkey and a man. Man has the power of discrimination, the monkey has not. It goes into the garden and eats fruits without thinking how the tree was transplanted and to whom it belongs. It only acts on the urge of the moment. But man works and enjoys the fruit of his labour. If we do anything without thought, we belong to the monkey kingdom. We do many things without considering the dignity of man. To achieve that dignity, we have to be self-sufficient. That self-sufficiency programme is the basis of the Firka Development Scheme.

Once when I went to Ceylon, some one asked me how to attain independence. Being questioned they said, all they grew in Ceylon are rubber, tea, coffee and copra and these they exported. I told them there are two ways to achieve their independence ; either they should find out a way to eat and digest the rubber they produced and ask their women to stich tea leaves and wear them as clothes ; or to grow rice and other foodstuffs or cotton to meet their primary needs, exporting only their surplus to other countries. The money crops must not oust those that meet the primary needs.

As regards centralized methods of production by heavy machinery, I have very little to tell you. Look at Germany that took to this path. I cannot describe their present plight except by one or two incidents that I happened to see when I was in London a few weeks back.

There is a tremendous shortage in all primary necessities not only in Germany but in England too. Just imagine shoes without sole or heels, with a piece of wire to tie instead of the lace : Yes, such are the shoes that the Germans are able to provide themselves. nowadays and that too sent from England. I have brought one as a momento. For such a petty thing as a soap the Germans are begging the Britishers.

I went to London in my Khaddar Pyjama and Jibba. I lived in a room costing about Rs. 50 rent per day. I thought there will be good laundry arrangements in London. I went to the lady in charge there and enquired about how long it will take to get my clothes washed. She said it may take two weeks. I explained that I would be back in Wardha by that time. Fortunately I had a few cakes of our own Maganwadi soap. I washed the clothes myself, for I had only two more sets to wear. To create a society based on Truth and Non-violence, self-sufficiency is the only method.

Formerly we were reserving foodstuffs for 2–3 years, and it served well during emergency. But now, the money economy has tempted every one to dispose of goods for money. Take Bengal Famine for instance. All the foodstuffs were bought away from the people there. The idea behind the Firka Development Plan should be a balanced cultivation to meet the primary needs of the people in the locality. After meeting the primary needs, the surplus of one locality may be exchanged with the surplus of the other localities. This must be done through Multipurpose Co-operative Societies. The Multipurpose Co-operative Societies should decide which is surplus. Inter-firka, inter-district and inter-provincial trade must be carried on only through such societies. In the case of the poor man selling the milk there would have been no violence or untruth if he sold the surplus after feeding the calf and his children. Mostly in the firka, barter economy will have to be taken in hand, although many will have to be used for limited transactions. Then and then only we will have a rational approach to the various problems. In England, at least the purchaser knows wherefrom a particular article comes. In India many things flood the market and we blindly and ignorantly buy them."

Soil Erosion—Its Prevention and Control

The control and prevention of soil erosion is a subject of great national importance. In our own Presidency the problem of soil erosion has to be faced and tackled in such areas like the Ceded districts, Bellary, Tinnelveli, Nilgiris and other dry cultivated lands scattered far and wide. In the Nilgiris, the worst affected area in the Province, the clearance of natural forests to form plantations has resulted in severe soil loss which can never be replaced.

National reconstruction is today the duty of the people and the Government alike. The question of saving the soil from the destructive processes of nature is as sharp a problem as any other. And so let us first try to understand the problem from both the points of view, of diagnosis as well as cure.

Erosion Defined

The soil which is the uppermost weathered and disintegrated layer of the earth's crust is responsible for all plant growth. It supports all animal and human life. It is a primary duty of man to protect this layer of soil and to see that its fertility is maintained. Soil erosion is the loosening of this soil from the bed and the transportation of soil material from one place to another. This takes place through the action of wind or water in motion.

Geologic erosion is a slow natural process taking place in an undisturbed environment. It is not of much consequence so far as its effects on agricultural lands are concerned. Accelerated erosion takes place when vegetation is removed and land put under cultivation disturbing the balance between the soil and its vegetational

cover. Erosion on cultivated lands is of this type.

Wind and water are the two agencies that cause erosion. Whenever soils without cover of vegetation in a dry state are exposed to high winds we have wind erosion. The fine particles of the soil are lifted and carried over great distances. Erosion due to water is the more serious and extensive type that occurs in many parts of the Madras Presidency, notably in the coastal distr cts, the black soil areas of the Ceded districts and in the h lly tracts of the Nilgiris. Two fundamental types of water erosion are 'sheet erosion' and 'Gullying.' In the case of sheet erosion, movement of runoff water and eroded soil takes place in sheets, approximately the same amount of soil being removed from each place. When this moving mass assumes sufficient velocity it has a cutting action on the soil. If there is any depression at all in the field, a gully forms where the mixture of the soil and water collects at a high speed. The runoff water carrying the surface soil flows down to gully with ever-increasing velocity. If the velocity of the runoff water is doubled, its energy is increased four times and its cutting action on the soil is correspondingly increased; its capacity to carry in suspension soil material is increased sixty-four times. The gullies tend to deepen and widen with every rainfall. They cut up agricultural land into small fragments and make them unfit for cultivation in course of time. Stream erosion, Debris Avalanche, Debris slides and caving, subsidence and erosion by waves are other types of erosion capable of working havoc on the soil in different degrees.

Now that we have, to an extent, grasped the nature of this menace, let us have an idea of the extent of control, man can exercise over it. To assist the people as well as departmental officers, the Government of Madras have brought out a publication dealing mainly with the preventive measures so far experimented and found successful.

Detailed Examination

In the chapter dealing with the question of erosion control in Agricultural lands, it is said, "The simplest form of soil stabilisers are small wattle-work revetments 15-30 feet long held by stout pegs and staggered throughout the danger zones. Where available, rough stones may be formed into small bunds in front of such revetments. Where conditions are suitable shrubs can be used to form natural revetments by cutting and egging them down with crowns uphill. On steep slopes where the soil is more unstable rough stone or even pucca masonry revetments may be needed. The remedial measures now adopted all over the world to prevent or reduce surface runoff and soil erosion and increase crop production consist of contour bunding, contour trenching, gully plugging, terracing, regulated forestry, controlled grazing, revegetation, selective weeding, cover cropping, mixed farming, crop rotation, strip cropping, etc. The first three methods are mechanical and the rest are biological in operation."

Summing up the Chapter on contour bunding the book says: "Contour bunding schemes aim directly at putting the entire rainfall on the bunded lands, preventing runoff altogether, stopping erosion of soil, and increasing soil moisture in quantity and duration and thus helps good crop production."

Contour trenching is excavating trenches along a uniform level or at a particular contour across the slope of the uncultivable waste in the top portion of a catchment and forming bunds at the trenches primarily to protect contour bunds the lower down from the runoff of the upper portion of the catchment. By this method rain water is held up in the slopes for a long time and growth of natural vegetation is accelerated in the slopes. The rain water percolates through the soil slowly and travels down and benefits the better types of lands in the middle and lower sections.

Terracing steep slopes of cultivable lands is one of the many mechanical methods of controlling soil erosion. In principle, terracing is essentially a process of constructing a series of drainage channels across the slope of hill sides whose function is to collect runoff water before it attains harmful velocity and conduct it slowly to an erosion proof outlet. The drainage channels which intercepts the runoff and prevent its rapid flow down the slope are formed by throwing low and broad embankments called terraces. The three types of terraces recognized are 'the guide row,' 'the level bench' and the 'mangum terrace.'

Contour bunding, contour trenching and terracing mentioned above are all mechanical ways of preventing or minimising soil erosion and these may be likened to curing a patient by operation. The other methods of control or erosion by regulated forestry, regulated grazing, revegetation, cover cropping, etc., are biological and may be likened to treating a disease by dieting or reinforcing good health by temperate living.

Control of erosion through crops or vegetation is the biological method of control. Vegetation is nature's protection against erosion. A cover of grass is five times more effective than bare soil in the control of runoff waters and 65 times more efficient in the control of soil losses. It is only when the natural vegetation is removed and land put under cultivation that erosion becomes excessive. But this is a necessary step in raising crops. Having put the land under cultivation we could take all possible measures to see that erosion is kept at a minimum. The principle of biological control of erosion is that cultivation of crops should be done in such a way that the maximum protection to the soil is offered for as long a period as possible during the rainy season. The effect of a cover crop on the control of erosion is considerable.

This is just an attempt to invite the attention of the people to the manifold aspects of a problem vitally affecting our interests. The soil of the land demands our attention. It is our duty to safeguard it.

Special Articles

Agrarian Reforms and Parity Economy

(Continued from the last issue)

By HON'BLE SRI O. P. RAMASWAMY REDDIYAR, *Premier of Madras*

Agricultural Worker

Fundamental to all discussions of agrarian relationships is the problem of agricultural labour. The history of agricultural labour makes sad reading. Landless agricultural workers constitute nearly 15 per cent of the rural population in the Madras Province, but the vast majority of them are encompassed by the five Giants of Want, Disease, Ignorance, Squalor and Idleness and a sixth is prowling about. Kisans, led away by false prophets and violent slogans, are being asked to imitate the exploits of their confreres in the industrial sector. The Russian philosophy that industrial labour should lead and agricultural labour should follow is being deliberately preached to them.

None can, however, dispute that the improvement of the conditions of agricultural labour is at present an urgent need. The war period with its rising prices no doubt induced a higher level of wages. According to a wage census conducted in 1946, grain wages in the course of the previous five years have risen by 252 per cent and money wages by 240 per cent in the case of men field workers, and 203 per cent and 197 per cent in the case of women workers, whereas prices of grains like rice and millet rose only by 111 per cent. Although, therefore, relatively the agricultural worker to-day appears to enjoy better conditions, th y call for considerable improvement. It is a recognition of this that has led the Government of India to pass the Minimum Wages Act. This Act gives the Provincial Governments a time-limit of three years for the enforcement of its provisions. How ver, the level of wages cannot be determined without a reference to agricultural prices. Price stabilization cannot be done successfully without the regulation of over-sea imports and exports as well as inter-regional transport. Above all, the uncertainties of agricultural economics should be removed or reduced to the minimum; otherwise, the workers cannot secure a good wage and full employment. It is quite unfair and bad economics to fix and enforce rates of wages, while leaving the wheel of fortune to decide the financial returns to the ryot from which wages must be paid. Unless agriculture s made remunerative and placed on the same footing with Trade, Industry and Services, any attempt to raise the wages and the standard of life of the agricultural worker will be unreal economics.

Simultaneously with the wages question should also be tackled the problems of rural housing and other amenities. In this country, we have everything necessary for the building of cheap and yet clean houses, recreation centres and schools. Planned rural housing on a national scale, having due regard to the building materials available in the various regions, is one of the prime needs. The provision of social and cultural amenities together with rural education based on a new curriculum embodying a definite bias to agriculture and rural industries, that should follow will help make the agricultural worker more efficient. The inauguration of Prohibition in this Province has already opened up a new era of great possiblities for the promotion of economic and social welfare for agricultural labour.

Place of Agricultural Worker in Parity Economy

However, the minimum requirements of agricultural labour are precise and capable of clear definition. It is paramount that the workers should be enabled to maintain the minimum standards of living. Nor should any one be able to batten on to the workers and live on the surpluses they produce. Every worker should be allowed to reap the benefit of his labour. In Parity Economy, from the proceeds of agriculture must be given, in the first instance fair shares to the labourer, contributing his work units, the landowner supplying land, capital and direction, and the tenant providing other requisites of cultivation. These shares must be the first charge on the gross receipts and each factor co-operating in agricultural production must get such levels of remuneration as the corresponding factors in the industrial sector would get. Any surplus that is left over will be divided among the three partners on a profit-sharing and incentive-giv.ng basis. Such a reallocation of the proceeds of agriculture will enable labour to get its legitimate share, take genuine interest .n agricultural production and to improve its own efficiency.

If this scheme of share-out is accepted and, at the same time, agro-industries are also started to give supplementary employment to agricultural labourers, their share will *pro tanto* increase. To the same degree, the gap between the incomes of these two classes of labourers will tend to narrow and ultimately even disappear.

What is immediately required, therefore, is for all concerned to see that the marginal returns from agriculture are raised. In the absence of such a surplus, the agricultural worker is able to get an increase n emoluments only at the cost of reducing the relative shares of the other interests in land (which, as is well known, are already very much lower than those prevailing in the corresponding secto s of Industry and Trade) and that, after causing a certain amount of social friction. Although this friction is not occurring on an extensive scale, and *ad hoc* Arbitration Boards, as suggested for deciding tenurial disputes might be sufficient to bring about concordant conditions, such friction is not conducive to agricultural efficiency and increased output. If, therefore, the agricultural worker is to have better conditions of life, if the conditions of the rural slums that are in no way less harrowing than those prevailing in industrial centres are to disappear, the Industry, the State, the Trade and the Services must all rush to the rescue of agriculture and see that the price paid to the producer of raw materials is adequate. Only then will a lasting and realistic solution have been found and the agricultural worker, who is an important partner in the enterprise, will get his legitimate share.

Diversity of Agricultural Interests

An attractive short cut to end the difficulties of agrarian relationship is offered in the proposal to reduce all agricultural interests to one class. I have even heard that that is the ideal

land policy for any country; but nowhere have I heard this proposition seriously put forward as applicable to the field of Industry, Trade or Services. I wonder whether the reformers have thought about the logical possibility of running all industries by workers alone, without technicians, supervisors and entrepreneurs, or of all offices by an army of clerks without Superintendents, Officers and Secretaries. The elimination of the parasitic middleman should not be confused with the introduction of an unvaried, uniform structure of society. Even n Russia, where the well-being of the agriculturist has been subordinated to the supreme end of maximization of industrial output, there are different types in collectivized farming itself such as the "toz", the "artel" and the "Commune." The "agriculture ladder" represents an ever present necessity to stimulate output and improve efficiency. In the Co-operative Democracy of my conception, there will be members performing differing functions and enjoying differing rewards based on their contribution of capital, technical or managerial skill and labour.

Minimum Prices for Agricultural Products

The question of fixing minimum prices for agricultural products, although topically not of significance in the prevailing remunerative price conditions, is nevertheless fundamental to any scheme of agrarian reform; but one reason why all schemes of Supporting Price Policies have met with obstacles in countries where they have been tried is that they have been considered in isolation from the price trends in the rest of the economic sector. Unless the question of minimum prices for agricultural productsi s intimately linked with the establishment of a parity with non-agricultural goods and services, no minimum policy mechanism can last without being a continual drain on the country's resources. My own solution, therefore, is this.

Careful cost accounting of all the stages of production from cultivation to the manufacture of finished goods must be done with respect to all the agricultural commodities. Taking cotton as an example, the cost of production of cotton and the margin of profit must be calculated. Then the cost of ginning and the profit of the ginner, the cost of spinning and the profit of the spinner, the cost of the weaver and the profit of the weaver, the cost of dyeing and the profit of the dyer, the cost of the dealer and his profit and so on. At present, the rates of profit earned by these various producers vary widely. It should be our *aim to make the rate of profit* for the various producers in the long chain of production uniform. Similar calculations for other goods will also enable us to fix the prices of other goods. Incidentally, this scrutiny of costs and prices at successive stages will throw into sharp relief the undue or excessive profits of certain classes of producers. In such cases, the reduction of the margin of profit may be effected either to raise the price of their goods to primary producer or to lower the price of the finished article to the ultimate consumer. This will be an elaborate and complex process, but it is worth the trouble. If not for this purpose, at least for fixing wages of industrial workers, a minute study of cost accounting will have to be undertaken soon; and when that is done, the benefit of the study can be enlarged to fix fair prices to agriculturists.

Rural Indebtedness

Reforms in a number of other directions call for consideration, of which agricultural financing is perhaps the most elusive one. Rural debt, as is well known, is a chronic problem. According to the Economist, who surveyed the problems at the instance of this Government recently, aggregate rural indebtedness of the Province in 1939, i.e., before the war, stood at about Rs. 272 crores. In 1945, as a result of the rise in the prices of agricultural produce, it stood at Rs. 218 crores. The net reduction is thus only Rs. 54 crores, but if the Rs. 27 crores contracted during war years for purchase of land are taken into account the gross reduction of debt comes to about Rs. 82 crores. Of this Rs. 10 crores has been due to the operation of the Agriculturists' Debt Relief Act, about Rs. 47 crores has been computed to be due to the sales of land and only about Rs. 25 crores due to the war-time rise in prices. Thanks to the present-day high level of prices for agricultural goods, the real burden of the debt is not seriously felt; but if any delayed depression occurs and agricultural prices sag suddenly, the problem of indebtedness will assume grave proportions. The Government of Madras have recently extended the scope of the Agriculturists' Debt Relief Act by an amendment and its effects are being watched. Schemes for launching a powerful drive to promote thrift among the agriculturists in these days of high prices and scarcity of consumption goods are under the active consideration of the Government. The National Savings Campaign is also exerting its influence on the rural population. In order to forestall any sudden deterioration of the financial condition of the agriculturists on account of future fall in prices, methods for the liquidation of debt are being explored with the help of land mortgage banks and the Co-operative department.

Financing of Agriculture

Liquidation of rural indebtedness and provision of credit through co-operative agencies do not go far enough. To promote positive good to agriculture, joint stock commercial banks in the country must be compelled to transact with agriculturists at least a quarter of its total volume of work. The contention would be that the commercial banks cannot afford to lend to agriculturists, and get their capital frozen. But when agriculturists will have to compulsorily insure their crops against losses due to drought, floods, etc., and when that is coupled with a scheme of livestock insurance and provision of an adequate Veterinary service to fight the fell cattle diseases like rinderpest, hæmorrhagic septicæmia, anthrax and foot-and-mouth disease, then indeed the agriculturist becomes credit-worthy and as good a constituent as the trader or the commission agent. If, even in these altered circumstances, the commercial banks are hesitant, the Reserve Bank of India in its Agricultural Credit department must step in and provide all the necessary facilities such as easy rediscounting of approved agricultural bills. All this might be unpalatable to orthodox banking theory and practice; but, after all, much of banking is based on arbitrary guesses and unsteady factors like public confidence. When society places agriculture in its rightful place, the banker should only be willing to profit by the change.

Land Revenue Reform

The reform in the field of land revenue has been long overdue. Having been practically the mainstay of Provincial finance for decades, it manifests very regressive features. It is imperative that this defect must be remedied without the least delay. The present land revenue may be replaced by a basic tax on land, determined by considerations of extent and fertility, super-imposed by a progressive tax on agricultural incomes. This Government will take up this reform

immediately after Ryotwari system is substituted for the Zamindari.

Land Reclamation

The reclamation of cultivable waste has been recognized as one of the important methods of increasing agricultural production. Unfortunately, a correct assessment of the total area described as cultivable waste and fallow has not yet been made. Much that is now called waste, might with a little application of capital, labour and human ingenuity be converted into smiling fields. An all-India survey is therefore an urgent requisite.

The essential thing needed for reclamation is man-power. This is at present readily available in the form of demobilized soldiers. A few colonization schemes for them have been set up in the Province of Madras, where also experiments in co-operative farming are being conducted. The Wynaad scheme provides for reclamation of 28,000 acres. Several other schemes for reclamation of waste land particularly in Gudalur and the Agency tracts are being scrutinized by the Government of Madras. The development of these areas is an urgent need which depends not only on man-power, but also on irrigation facilities and cheap electricity. Madras has some big hydro-electric projects and a major part is covered by a grid system. Yet, the supply of electricity lags far behind demand.

Livestock Improvement

In the Western countries, rearing of cattle is as important a branch of agriculture as the raising of grains. While in India where the value and services of cattle are greater, it is yet to receive the same degree of attention. The two Livestock Research Stations at Hosur (Salem district) and Lam (Guntur district) are engaged in raising pure bre ding bulls for supply to the districts and for this purpose nucleus herds of Kangayam, Ongole, Hallikar and Sindhi bulls are maintained. Recently, experiments are also being conducted to b eed dual purpose cattle. However, much remains to be done especially in the elimination of the scrub cattle and the stamping out of epidemics which are conditions precedent for the raising of superior and healthy livestock. The distribution of the breeding bulls is now done through district boards and co-operative societies.

Electricity and Water

There is a rapidly growing demand for electric power, whether for lifting water on crushing sugarcane or oilseeds, or for several other subsidiary and semi-processing industries. If adequate supply of electric energy is assured, the only other requisite to enrich rural life is abundant supply of water. Given these two blessings, agriculture can make giant strides. Hence the slogan of every agricultural reformer should be " More electricity and more water."

Irrigation Systems—(1) Tanks

In the matter of supplying water, however, we have inherited a great tradition in South India from the days of the Chola Kings. Yet the area irrigated to the total cultivated area comes to only 27 per cent. Of this half is watered by the great irrigation projects and the other half by other sources like wells, tanks, channels, etc. In spite of financial stringency, we have provided for nearly 37 lakhs in the coming year—which is double the expenditure of the previous year—for the improvement of these minor irrigation works. But this is a flea-bite. The tanks have an importance all their own as vital protective irrigation sources. They have been described as the " pockets of insurance " against crop failure. Unfortunately, many of them have fallen into sad disrepair. To-day, there are over 33,000 tanks all over the Province irrigating an area of about 3·2 million acres ; but if these tanks are renovated they could irrigate a much larger area. The bunds of the tanks will have to be raised and the levels of the calingula to be regulated. All these will cost on a conservative estimate Rs. 15 to 20 crores over a period of five years. Being works essentially protective, in whose name water-rates are being collected from the ryots, a great responsibility lies on the State to see that a Planned Tank Renovation Programme is launched without delay. The urgency of the food problem makes it much more than a Provincial question. Knowing as they do our financial straits, it is hoped that the Government of India would come to the aid of this Province with a munificent grant in this matter of supplying life-giving water to the toiling peasantry.

(2) Anicuts

The anicuts of the Madras Province by which the ancient engineers of this land had dammed the rivers with an amazing skill, to-day stand in need of urgent attention by way of repair and improvement. Consequent on neglecting them, the river-beds have been scoured away in some places and silted up in others. Construction of suitable regulators, and other urgent measures of anicut reconstruction form one of the important items in our post-war scheme of providing protected irrigation works. Here again, it would cost us in the next five years at least a sum of Rs. 5 crores and unless the Government of India comes to our relief, the Provincial Government would be in a financial predicament.

(3) Wells

Next in importance come the wells. There are large tracts in this Province which are not reached by the great protective and productive irrigation systems mentioned above. For them, wells are the only source of water supply. Even in areas of the more fortunate ryots when monsoons fail and tanks dry up, wells are in an invaluable standby. Although, in the crisis of the food situation, an Accelerated Wells Scheme under the stimulus of subsidies has resulted in the sinking of thousands of new wells and renovation of old ones at a cost of several lakhs, much more remains to be done in this direction, as also in renovation of *kasams*, tapping of sub-soil water, and attention to *kudimaramat* for which a sum of at least Rs. 8 crores will be required in the next five years.

(4) Giant Projects

The giant river valley projects, however, have a different significance. They are productive rather than protective and in their multi-purpose character they would not only bring in more land under cultivation, but would also generate electricity by which numerous industries could be started in rural areas. A wide dispersal of industries would ensue and urban concentration would gradually be reduced. Such are the Tungabhadra and Ramapadasagar projects which we have recently initiated. The Kistna Pennar Project is yet another major scheme of irrigation work which comes under Madras Government's short-term plan of post-war irrigation and development. This alone will bring in an area of over 2½ million acres under the plough and would involve an outlay of Rs. 80 crores. The Ramapadasagar Project will bring in another 2·3 million acres under irrigation and 2 1 million more acres will get improved water-supply. The Tungabhadra Project might irrigate an area of 3 lakhs of acres in Madras Province. In all, over 5 million acres will come under irrigation and perhaps an equal extent will get improved water-supply, when

these three major irrigation works are completed at a total outlay of Rs. 200 to 300 crores. About half a dozen more projects of the bigger category are also under consideration and when these take shape, the wealth of the Province will be substantially increased.

Human Factor—Education

No agrarian reform would succeed that does not pay proper attention to the human factor. The agriculturist must be educated in the best methods of cultivation and in the optimal utilization of his time as well as the factors of production. For an agricultural population of nearly 40 millions in our Province, something more comprehensive and realistic than what is now imparted in the two agricultural colleges and the four agricultural schools must be attempted. This would involve an entire re-organization of our education system. The future schools will have to teach not only the three R's, but also impart a clear knowledge of labour and farm management, train the pupils in the local agro-industries and make them skilled in all kinds of jobs the newly organized Co-operative Community would provide. The school must also have a farm, an agro-industries section and classes for liberal arts. The completion of the course in these schools must make every boy an efficient worker, and a "full man" capable of engaging in profitable pursuits. In addition to instruction for juveniles, arrangements should be made to instil new ideas regarding agriculture and agro-industries to adults. This will not only help to bridge the gap between youth and age in time and ideas, but also go a long way to solve what has proved to be one of the most baffling problems in agricultural development, namely, the translation of the achievements of the laboratory to the actual field. I am conscious that all these are tasks full of difficulties; and to shake the habit of thinking formed through decades since the days of Lord Macaulay is almost an uphill task. Yet an earnest effort should be made and once the inertia is overcome, progress is assured.

Research

Closely connected with education is research. To-day in India research is considered to be the province of the State or State-subsidized Universities whether it be in Industry or Agriculture, or Trade. While it is true that the funds that Private Industry could spare might not be adequate to undertake independent research in all cases, it should nevertheless, be admitted that the share of the profits that goes to Managing Agents and other middlemen is often so disproportionately large that a part of it could without hardship be diverted to a common pool for the development of industrial research. I would go even farther and say that the Company Law should be so amended that no new company with a capital of over 5 lakhs be permitted to set up, unless it contributes a certain percentage of the profits to a National Research Fund. All this, however, cannot apply to agriculture in the present day. The State will have to continue to attend to agricultural research and to an increasing extent for a long time to come; and when the onus of financing organized industrial research is shifted on to the shoulders of industry as is the practice in the West, agricultural research will undoubtedly receive a fillip.

The transformation that science has worked in the agricultural practice of the West is a marvel, as it were. Agricultural chemistry and physics, entomology and ecology, plant pathology and veterinary science, cattle and plant breeding, engineering and advanced research—have all been harnessed to agricultural development. Our ancestors by practising concentration of thought probed into the mysteries of the all-pervading forces in Nature—the Para Sakti—drew the secrets thereof and gave them to the world. Selflessness and singleminded devotion were their Open Sesame to the immeasurable Treasure House of the solar, the tidal, the cosmic and atomic energy. To-day scientists, the counterparts of our ancient seers, have learned to control atomic energy; but unfortunately for destructive purposes. All great inventions must be applied to constructive ends only and agriculture offers an ever widening vista of opportunities for such scientific research. Hybridization has produced in Russia and Canada remarkable breeds of plants, combining hardihood and abundant yield of the wilder parent and delicacy and sweetness of the other. Success similar to that achieved in the case of sugarcane must be attempted in the case of all cereals, vegetables and fruits. Scientific research must be extended to vernalization of seeds and artificial insemination of cattle.

Even more important than the achievements of science is the translation of those achievements to day-to-day agricultural practice. The utilization of artificial fertilizers, a wider use of pure and improved varieties of seeds, raising on large areas of new types of fodder for cattle and green manure for land, a vigorous policy of afforestation both for improving climatic conditions and supply of timber and fuel to the ryots and a large scale and organized attempt to carry out bunding, river management and anti-erosion measures are the more prominent among the numerous ways by which a fruitful marriage of science to agriculture can be effected. The progress achieved in these several scientific lines of agricultural advancement must be periodically measured by collection of statistics. The organization of an efficient Economic and Statistical Service is therefore an important item in any sound scheme of agricultural reform.

Conclusion

From the foregoing, it will be seen that I have attempted at best to outline only the salient features of agrarian problems and have ventured to suggest certain radical solutions, even at the risk of being called Utopian. A factual account of the various measures of agrarian reforms so far undertaken by Madras Government and those for which we have definite plans in our scheme of post-war reconstruction is being prepared by the Economic Adviser to this Government and it would be published shortly in all the regional languages of the Province. But even from this general survey, it will be evident that the agrarian reforms contemplated at present must have a short term and a long term aspect, the short term covering the transitional period and the long term striving after the establishment of a Parity Economy in a co-operative Commonwealth in which Agriculture will stand on an equal footing with Industry, Trade and Services. In the achievement of these twin objectives, legislation though essential, has its limitations. Too much law making often defeats itself.

> "How small of all that human hearts endure
> That part which kings or laws can cause or cure."

Consolidation of holdings, codification of land revenue laws, liberal grant of revenue remissions, replacement of the existing regressive land tax by a graduated agricultural income-tax, abolition of zamindaris, fixation of fair rents by the constitution of Arbitration Tribunals and payment of fair wages to agricultural labour—these are some of the problems which law could tackle and steps have already been taken to bring in the necessary legislation.

Expansion of irrigation works—productive and protective, renovation of tanks, digging of wells and reconstruction of anicuts, reclamation of waste lands, construction of hydro-electric schemes, extension of rural education, encouragement of scientific research and application of the fruits of research to practical agriculture—these are some of the lines on which the State can play an active part and the Madras Government is devoting their earnest attention to every one of them. In the sphere of reducing the burden of rural debt and financing of the agriculturist, the Madras Government had passed important enactments and have achieved a fair measure of success too.

But more fundamental than all these is the creation of such conditions for agriculture as would enable the agriculturist to hold his own with the industrialist, the trader or the black-coated professional man; conditions, which would give the agricultural worker not merely wages and terms of employment on a par with the factory worker; but more—the dignity of equal partnership with the landowner in a common venture. This is what I mean by Parity Economy and to bring about this Parity a great co-operative effort is required. More important than laws and regulations is the willing and active work of a large army of selfless and public spirited men and women. It is in this realm that the constructive workers of Mahatmaji's conception can find a wide scope for very useful work. The constructive workers should be the friends and guides of the villagers, animated by missionary zeal. They should inspire, initiate and push through the reforms to a successful conclusion with maximum possible degree of expedition. No law, no " ism " can be a substitute for the unflagging zeal and indefatigable energy of these constructive workers. On their effort lies the future of the lives of millions of the peasantry of this ancient land.

India's Forest Resources

India has about 155,000 square miles of forest or 25 per cent of the total land area. Of this area, nearly 50,000 square miles is private forest and of the remaining 100,000 square miles about 90,000 square miles is managed by the Provincial and State Forest Departments, the rest being controlled by other departments and panchayats. The private forests have mostly been worked by their owners for their private gains, while the forests under the panchayat and other departments have not been able to achieve a high degree of forest conservancy. About 80,000 square miles of both Government and private forests, i.e., about 12 per cent of the total land area may be classified as merchantable forest. Compared with the standards of other countries, the forest area of 25 per cent would be adequate, but as most of the private and other forests not under the management of the Forest Departments have been degraded, the forests are inadequate either for affording protection against floods and erosion or for supplying the needs of the agricultural community in respect of firewood and small timber.

The forests of India are a national asset held in trust for the people, and must, therefore, in a broad sense, be managed in accordance with a national policy. Forest policy also deals with the social and economic aspects of forestry. It has to legislate on the one hand for rights of users, and on the other it has to enter the field of silviculture, the main function of which is to grow in the most economical way, those forest crops best suited to meet the requirements of the locality. In a narrower sense it must prescribe in considerable detail for the forests which are owned by the State, and in a wider sense it must also consider the responsibilities of the State with regard to those in private or communal ownership.

Forestry differs from agriculture in the long period which elapses in trees reaching their full growth. Hence continuity of action is required over a period of years, and whether the owner be the State or a private individual, there must be a policy which will secure in perpetuity the demand made on forests in the interests of the country as a whole. Such a policy should provide stability in forest finance and aim at securing the highest degree of uniformity possible. There are four main fields of economic use for which the policy must prescribe: (1) the supply of forest produce to the mass of local consumers particularly the rural population, (2) the protection of land from erosion, floods and unfavourable climatic influences, (3) the protection of timber for building construction generally and (4) the production of raw materials, both timber and other forest products for industries using wood.

Forests Inadequate

The capacity of Indian forests measured in terms of productivity is inadequate for the fulfilment of the first three requirements. If we are to reach self-sufficiency in regard to the fourth, we are also probably deficient in terms of resources. The principal object of forest policy must, therefore, be to make good these deficiencies.

Old Forest Policy

The first announcement on forestry policy made by the Government of India was in 1894, based on the following principles: (1) that the retention of sufficient forests to preserve the climatic and physical conditions of the country is a matter of primary importance, (2) that the need for securing sufficient forests for the general well-being of the people comes next, (3) that cultivation is of greater importance than forestry, but permanent cultivation must not reduce forest lands below the prescribed minimum, and (4) that revenues should be realized to the fullest possible extent, but only after meeting the requirements of the rural and the local population free or at concession rates. Although a very valuable forest estate has been built up as a result of this policy, it failed to realize the fact that forestry transcends all political and administrative boundaries in many of its more important aspects, and should therefore be approached on an all-India basis.

In attempting to assess the extent to which the objects implied in the principles have been achieved over the country as a whole, certain points have to be borne in mind: Firstly, the policy was intended to apply to State forests only; private forests were then sacrosanct, and even their extent was probably unknown in those days. Secondly, a formidable task was presented to the administrators in those early days of development. Already subsistence farming, generally incompatible with forest conservancy in the hills, had been established throughout most mountainous regions of the country. There was the general opposition by the people to the reservation of forests which they traditionally looked upon as their own; and large areas were subject to extensive exploitation by the users.

Generally the policy followed in creating the reserves was to carve out the valuable timber forests, forests unencumbered with rights, and remote forests required mainly for protection purposes. After delimiting the reserves, other classes of forests were constituted—"protective forests," "unclassed forests" and "unreserved forests." The main function of all these was to supply local requirements. To many of these forests, the principle of the sustained annual yield, which requires rotational closing the forest for regeneration, was not applied on the ground that it would amount to an interference with the liberties of the villagers. The rules regulating the cutting of trees have not been observed to a large extent and, therefore, have failed to prevent the over-utilization of these forests. Perhaps it was thought that these forests together with the private ones would be more than adequate to supply local demands, or possibly no genuine attempt was made to assess local requirements. The result has been that outside the reserves there has in general been a steady depletion of the growing stocks in all classes of forests set aside for the satisfaction of local requirements, hence the pressure on reserves has increased.

Forest Co-operatives

Little work has been done in establishing fuel and fodder reserves, and in certain Provinces the entrusting of the management of suitable areas of State forests to village communities has resulted in the deterioration and even destruction of those forests.

In some provinces on the other hand, where the conditions had reached a critical stage, the Government associated themselves with the villagers in managing both the reserved and unclassed forests by assigning the forests and their income to registered co-operative societies. There was one condition attached to this scheme, that the societies were to accept working plans sanctioned by the Government and supervision by trained forest personnel. The results have been most encouraging.

The grazing problem has not yet been satisfactorily solved and to-day excessive grazing presents one of the greatest obstacles to the regeneration of forests. The problem of ensuring adequate forest resources for the future has long been urged by the advocates of conservation. The problem is very complex and although it is being approached in many ways by the various Provincial Governments, a generally satisfactory solution is not assured. The fact that the grazing incidence ought to be limited to the carrying capacity of the forest has been accepted in principle, but rarely put into practice. In recent times, some Provinces have attempted to solve this problem by classifying cattle as 'essential to agriculture' and 'non-essential' and to allot forests for grazing on this basis.

The policy with regard to exploitation of forests has always been a subject of controversy. Is departmental extraction or the sale of standing timber to contractors more favourable to Government? There are advantages and disadvantages in both. But the general tendency has been to reduce the extent of departmental timber operations. In the past, attention was largely focussed on the valuable hard woods which alone commanded ready markets. The objects of management were broadly to increase production of these species and to do this at lower costs. The removal and replacement of inferior forests with suitable plantations, the improvement of mixed woods by scientific felling and fire protection takes time, and a forest crop matures slowly. Thus the fine forests of hardwoods built up over the past 70 years and more have still to produce a full yield. Perhaps more was possible; the speed of converting the useless forests could have been increased, remote forests could have been opened out by roads, but restricted finances hindered development. Even so, there was a lack of enterprise in not developing the use and production of some of the hardwoods required for special purposes, for which timber or steel was imported. There was one notable exception, however, namely, the mulberry plantation created for supplying timber for the sports goods industry.

Except for the earlier stages of forest development, the Government of India kept aloof, leaving execution of the policy to the Provinces. It is clear now that in the light of the increasing requirements of our nation, the time has come for a reorientation of India's forestry policy.

Future Agricultural Development in the Madras Presidency

In India, and in particular South India, the magnitude of the food problem, was not felt, till the commencement of hostilities in the South-East Asia, and fully, realized only after its termination. The total food production of cereals, pulses, fruits, vegetables, milk, fish and eggs is far below our present requirements, to maintain the population in health and vigour. The demand for food of all kinds, with and ever multiplying population is bound to be, year after year, on the increase. It is, therefore, necessary to take stock of our wide and varied natural resources of our country, and examine how each one of them, could be developed to its fullest capacity, to enhance the food production in our country.

By C. R. SRINIVASA IYENGAR
Deputy Director of Agriculture

The problem of producing adequate food to a point of self-sufficiency or in excess over our requirements to meet contingencies, has to be tackled both by increasing the area under irrigation and by enhancing the acre output of crops in areas already under cultivation It is an accepted fact that acre-yields of food crops in our country in compasison to the yields in other countries of the world, continue to be poor. This said state of affairs is mainly due to several natural factors operating to pull down the yield of crops in our Presidency.

Water-supply

It is well known to all agriculturists that adequate and well-distributed water-supply with good drainage, sufficient manures and good seed sown in the proper season, are the limiting factors in increasing the average acre-yield of crops. Timely sowing and planting of crops are of utmost importance, as they help the crops to take advantage of natural conditions. But in a country like ours, that depends on the ficklish and precarious monsoon rains, to start the sowing of crops and grow them to maturity, the yield of crops cannot be often be forecasted, till about the harvest. In no two years, the yields of crop are alike and they vary widely from year to year. In the case of rainfed areas, rains are not received in proper season, to prepare the land for sowing and much less, to sow the seed at the right time. Tankfed areas again, depend on the

rains in the basin, from which they obtain supply to fill them up. The river-fed channels cannot be operated till rains, as their sources, are adequate and timely. *At the present moment agriculture is being carried on to suit the meagre and precarious rainfall or irrigation facilities and not irrigation facilities created to suit the needs of agricultural season and its requirements.*

This aspect of providing irrigation facilities to suit the agricultural needs of the country by contriving to utilise our abundant natural resources and press them to the service of the agriculturist as and when he requires it, should be the main guiding principle in initiating new ones, and in reorientating existing irrigation projects. In recent years, this principle is being more and more kept in view by the States concerned in designing irrigation projects. We have now the Mettur and Papanasam reservoirs functioning to collect the flood water of the Cauvery and Tambraparni rivers in the south. The large quantities of flood water that were formerly emptying itself into the sea, have now been impounded and regulated to supply water as and when required for crops in the delta. But for these reservoirs, our Presidency to-day should have been in a worse plight. Similar storage facilities for the Tungabhadra and Godavari rivers are in sight, to bring vast areas to support smiling crops of corn and fruits in the northern districts. I wish that in the next decade or two, many more reservoirs across big and small rivers that meander across the peninsula will come into existence.

Tank System

Next in importance, to the river-fed channels, tank system of irrigation supply water to a fairly large extent of irrigated crops in our Presidency. However, many of the tanks are in bad state of disrepair, their catchment area having been reduced by years of silting. The quantity now stored is often very inadequate to support the crops grown over the full ayacut and very often insufficient to mature one full crop. Planting under many of them is delayed. They require deepening to increase their storage capacity. The silt so removed from the tanks in many cases is a very valuable and complete manure to fertilize the eroded soils of the basins from which water flowed into the tanks. Apart from improving the sources and capacity of the tanks themselves, which would form part of a long range programme, the tapping of underground water supply by digging wells in the ayacuts themselves, to save crops at critical periods, for giving one or two wettings from wells, is of immediate necessity and will go a long way to increase crop yields. It is a good augury of our future prosperity that the subsidized well sinking programme has been started. This scheme though commenced as a famine measure, should in my humble opinion, be pursued with the same vigour and speeded up for another five years, Wells are as great a national asset as river projects. They very often help to save crops at critical period when one or two wettings given or not, would mean a full crop, or no yield at all. With a future, when electric energy is expected to be widely made available, irrigation from wells to support crops at critical periods is bound to play a great part in increasing food production. With this end in view the subsidized programme of well sink is best continued till the target figure programmed is reached.

Manure

Side by side, with the programme of providing irrigation facilities to suit the agricultural practices, the next important need of crops is the provision of plenty of manures, both organic and inorganic. It is a well-known fact that among the organic manures, green leaf manure either grown in or by obtaining from outside is not only the cheapest form of manuring, but also it is most responsive. The value of green leaf manure cannot be overestimated. However, green manuring as a general agricultural practice, during the past two or three decades, has not been as popular as was expected, because of the many limiting factors operating in the raising of green manure crop in between two food crops in summer months in the off-season. In the Tanjore district, the area under green manure crops has been progressively increasing only after the construction of the Mettur Dam. With the better irrigation facilities visualized in the future, I am very hopeful that green manuring practice would come to stay in many parts of our Presidency. Yet there is bound to be areas where green manure crop could not be grown successfully for one reason or other. These areas will have to depend for green leaf from outside sources. In many tracts, on bunds and fences and waste lands with the specific purpose of providing green leaf for their paddy land and fuel for their domestic use has come into disuse. Trees in one's holding is a very valuable asset to a farmer. Think of it, it gives you annual cuttings of green leaf for manure purposes, while the branches lopped off provide fuel. Aged trees would give you necessary timber for agricultural implements and building purposes. Indirectly, a farmer possessing a suitable grove of trees commensurate with this holding, will not misuse cattle manure as fuel. All the dung collected in his farm yard will automatically go to fertilize his lands. Just ponder over our present fuel position in our country. This Presidency has not been in the past importing fuel from any other Provinces or country, as rice, oils, cloth and yet, the scarcity for fuel is becoming acute day by day and prices are souring high. This sad state of affairs is experienced even in towns and villages situated in the vicinity of hills. The fuel famine will be a permanent feature, in this country, if adequate steps are not immediately taken to increase the proportion of forest areas. What is now happening is that all available trees, young and old, are ruthlessly cut, to take money without, in the least, visualizing the bankrupt condition that the country may soon be brought by this practice, if we do not, as a nation think and plan ahead for a regular and an increasing supply of fuel for domestic and other industrial purposes. Planned programme for tree planting both as individuals and as a state policy, should be put into operation from now to grow trees in one's own holding and to plant with suitable trees all waste lands that are not fit for economic arable cultivation. This programme of tree planting should be given the highest priority. In fact, the nation as a whole should be awakened to realize the advantage of tree planting as a planned operation. Apart from obtaining green leaf for manure, and fuel for domestic use, the groves of trees studded all over the country would have a very moderating influence on the climate of our country, and regularize the rainfull conditions which are becoming eratic day by day. Incidentally, these groves of trees when grown up, would provide ample moving space to cattle. In recent years, some work on tree planting has, no doubt, been attempted. These poradic attempts depended on the enthusiasm of the officer who sponsored the programme. But it soon waned off, with the exit of the officer from the place. Hence there is a great need for sustained and well-planned programmes that would go on, irrespective of the presence and drive of person or persons that started it or given the necessary fillip to the programme.

Next to green manure and conservation of cattle manure, oil cakes and bone-meal produced in the country should be conserved and retained for our use, either returned directly to the soil as manure or through feeding cattle with edible oil cakes. Export of oil seeds and bone products is a great drain from our country and should be stopped, if the fertility of our land is to be built up and health of the cattle improved. As already mentioned, tank silt is a very valuable bulky manure to fertilize garden and dry lands. Its value is well known to cultivators. Where facilities are available, silt is made use of. However, the greatest limiting factors in using silt in a large measure is the digging and transport costs. If cheap motor power for digging and transport of silt is made available, the programme of excavation of tanks to increase their capacity on the one hand, and the use of silt for fertilizing lands on the other, could be accelerated. In addition to udicious conservation and use of natural manures such as green leaf, silt, cattle manure, oil cakes and bones, the application of concentrated manures like sulphate of ammonia in correct doses will help to build up the average acre yield of crops. Hence plants for the manufacture of concentrated manures has to be put to supply cheap concentrated manures on a large scale at the very door of the cultivators. This matter has already been taken up by the India Government.

The Agricultural Department has now a range of good selected strains have the capacity to show their full merit when timely and adequate water supply is given and lands in which they are sown or planted is well fertilized with combination of organic and inorganic manure. Schemes for the supply of pure and high yielding strains to the cultivators should become a permanent feature of the departmental work.

I have in this short note attempted to point out the need of reorientating irrigation projects to supply water to the needs of agriculture and tapping under ground water-supply. The importance of tree planting on a planned programme cannot be over emphasized to provide green leaf manure, fuel and timber of agriculture and building purpose. I am hopeful that with better water facilities, manures and seed, the acre yield of crops can be brought in a line comparable with those obtained in other countries within the next decade.

AGRICULTURAL NOTES

Fruit Varieties of Plantain for the Farmer

Fruit is an essential article of diet and plantain fruit is the most easily grown on a variety of soils and situations. It can be grown in garden or wet lands. In some places it is rainfed. With little effort it can be grown in the back yards near the wells making good use of the waste water from the bath room and the kitchen. It indirectly helps to keep backyards free from pools and mosquito breeding as the leaves rapidly evaporate the water into the air. It is a perennial, propagating itself by means of suckers. Besides giving leaves for domestic use, it yields fruits of easily digestible and sufficiently nutritious value. Its food value as given below compares very favourably with the other common kinds of fruits and the apple which is held in high esteem by the Europeans.

Variety of Fruit.	Proteins.	Fats.	Carbo-hydrates.	Calorific value Calories.	Minerals.
	PER CENT.	PER CENT.			PER CENT.
Plantain ..	0·40	0·17	6·29	29	0·95
Custard apple ..	0·46	0·16	6·81	26	0·67
Guava ..	0·2	0·28	4·06	20	0·67
Mango ..	0·18	0·02	4 11	18	0·36
Apple ..	0·09	0·06	3·54	15	Not known.

Besides the higher fruit value indicated as above, the production of essential food constituents namely Carbohydrates, which are in large demand in the present food crisis is relatively larger than any cereal crop could produce as given below:—

	Acre-yield of fruits.		Dry weight of figs.
	LB.		LB.
Plantain (Karpura Chakrakeli).	30,000	Equivalent to grain.	5,500
Paddy (Sarwa and dalwa).	..	..	4,500

But methods of utilization of the plantain have not yet been so well developed by the people as with the case of cereals, the main food crops of the land. In American and other foreign countries, starch is prepared from plantain and is thus harnessed to the use of the common man.

Karpura Chakrakeli and Tella Chakrakeli are the common varieties of plantain fruits grown in the Godavari district. In order to find heavier yielding and better quality fruits, several varieties from various parts of the Presidency were studied and their results are presented below.

Karpura Chakrakeli or Guinea or " poovan " in Tamil is found to be the most profitable variety to plant in the Seethakattu (December-January) plantation. Its good sized bunch and the longer keeping quality together with its relatively cheaper cost much with in the reach of the average man have made it to be preferred to a more delicious variety Tella Chakrakeli for commercial plantations. For Tholakari plantation it is not suitable as it is too late in bunching. Although it can be managed in the Tholakari season to a successful crop with good amount of care in several respects, past experience has ruled it out of consideration.

Tella Chakrakeli and Mauritius are considered to be the best for the Tholakari plantation.

Among the other varieties studied Sudha and Vadakkan kadali approach Karpura Chakrakeli in the size of bunch and number of fruits.

Giant Chinese resembles Mauritius in all respects and can be considered to be even superior to it for it lacks the sunburnt nature of the fruit stalk at the bottom of the bunch and the fruits when exposed towards the sun. Both the varieties possess to some extent or other the quality of shedding of ripe fruits from the fruit stalk, a quality undesirable from the fruit

sellers' point of view. Also their big sized fruits and consequently a price beyond the reach of the common man's pocket have been considered by the fruit vendors unfavourable for the interests of the rapid reach of the varieties. Otherwise Giant Chinese and Mauritius plants possess desirable characters, viz., warfunds of trees and easy digestibility of the fruits.

The bunch characters of the promising varieties are given below :—

Variety.		Weight of bunch in lb.	Number of fruits.	Size of fruits.		Bunching period.	Remarks.
1. Karpura chakrakoli	..	38	179	Small	..	Feb.—Mar.	Flavoury.
2. Tell chadrakoli	..	12·7	67	Medium	..	Jan.—Feb.	Very flavoury.
3. Mauritius	..	26	118	Big	..	Feb.—Mar.	Flavoury, easily digestible.
4. Giant Chinese	..	24	74	Big	..	Jan.—Feb.	Do.
5. Patcha Nadan	..	27	85	Big	..	Jan.	Flavoury.
6. Nendrapadathi	..	16	54	Big	..	Jan.	Special flavour liked by Malayalees.
7. Vannan-eraden	..	21	70	Big	..	Feb.	..
8. Eraden	..	20	74	Big	..	Feb.	..
9. Karpura bali	..	31	86	Big	..	Feb.	..
10. Sudha	..	29·5	138	Medium	..	Feb.-Mar.	..
11. Vadakkan kadali	..	30	188	Small	..	Mar.	..

1. *Mango varieties for profit.*—Mango is the fruit *par excellence* of India and is consequently most popular both in home compounds and commercial orchards. The number of mango varieties suitable for selection is so many that the prospective planter is often at a loss to know what to choose. His friends who have been to Bombay will speak of the famous Ratnagiri Alphonso, while those who have tasted the Langra of United Province, Bihar and Bengal will extol that variety. Within our own province, those hailing from the Circars would suggest a choice rasam variety of a Jehangir or Himampasand, while those from Tanjore may recommend the Padri variety. To a certain extent, and particularly among the home gardeners, the selection of the variety is bound to be governed by individual tastes, while for commercial orchards the consumers' taste together with economic characters will count a great deal. Observations made at the Fruit Research Station, Kodur, in a variety collections area consisting of nearly 100 varieties of repute from all parts of India and the outside should be of great value to the mango-growing public in this respect of varietal selection. A surprising but nevertheless highly important fact brought out from these variety collection at Kodur is that, an indiscriminate selection of varieties is virtually a gamble. During the first ten years of orchard life, 83 varieties of mangoes out of 98 varieties planted had borne fruits, and the former did not include a single variety introduced from Bengal, Bihar, Bombay and United Provinces. Strange as it may seem, varieties introduced from Ceylon have on the other hand, not only fruited but have performed very satisfactorily. It seems safe to infer from these that importation of plants of mango varieties from the North, Western or Central India is a hazardous and risky venture. In other words, the safety lies in selecting varieties from these already found growing in our own province and from any of those which have proved to perform well under our conditions. The Kodur collections have also shown that even within the same variety, some trees perform better and more regularly than others. Such high yielding and regular cropping trees have been marked out and plants from these selected parents are available for supply to the public. Indents for such plants may be addressed to the Fruit Specialist, Kodur P.O., Cuddapah district.

2. *Budded lime trees yield heaviest crops.*—The small fruited acid lime is a popular fruit in South India and is an invariable requirement in most households on every day. It has been the universal practice all over India to raise lime plantations entirely with seedling trees. Budded or grafted, lime has never appealed to the growers nor has ever been attempted even by fruit research workers in this country as a trial till about 1935, when the Fruit Research Station, Kodur, undertook this propagation method on a large scale to explore its potentialities. A regular experimental plot was established to test the budded lime trees with seedlings, and the former included limes raised on three different rootsstocks, viz. (1) rough lemon, (2) Gajanimma and (3) acid lime itself. Careful and accurate data collected from this plantation has proved that budded lime trees on Gajanimma stock are the best for our commercial plantations, since they not only yield crops earlier by about a year, but also yield on the average nearly double the crop size of that from seedling trees. Analysing the income per tree during the first nine years of orchard life, a seedling tree has been found to give an income of Rs. 15–12–7 while a budded tree on Gajanimma gave during the same period of Rs. 26–10–8. This difference works out to Rs. 10–14–1 per tree or Rs. 743–6–0 per acre. These figures should induce all prospective lime orchardists in this province to go ahead with budded lime plantations on Gajanimma stock in place of the erst-while seedling groves.

Dry Lands Deserve Better Attention

Results of the Dry Farming Development Research Scheme, Madras

The Dry Farming Development Research Scheme was started in June 1943 with the object of trying out on a large scale on the cultivators' holdings near Hagari, the dry farming improvements that were evolved previously at the Agricultural Research Station, Hagari (Bellary). The results of five years work which are of economic importance are herewith summarized. These improvements are now being carried out in the districts.

Dry Farming improvements mean only good farming practices to be adopted in dry lands, especially those situated in low and uncertain rainfall areas, like the Ceded districts. The main object of these practices is to make the most of the low and uncertain rainfall for the benefit of the crop and to resist soil erosion. Several practices were under trial and those that have been proved to be beneficial are described hereunder:—

(1) *Bund-former bunding.*—This is done by using an implement known as the bund-former, designed by the Madras Department of Agriculture. (*See* fig. 1.) It is a simple implement drawn by a pair of bullocks. It consists of two collecting boards and as the implement proceeds it leaves a small bund behind, which is about 6″ or 7″ high and about 18″ wide at base. When this implement is drawn along and across in the field, small bunded compartments of about 10 cents each are made. (*See* fig. 2.) These bunded compartments trap rain water and make it soak into the land with the result that the land is made to take in more rain water and give better crops than when the bunds are not there. This is specially useful in black soil areas in which rain water does not percolate freely and has a tendency to run off the land carrying with it good soil. Bund-former bunding not only helps to make more rain water soak into the soil, but it also reduces erosion. It costs about 8 to 12 annas per acre to put up bunds in this manner and one implement is capable of bunding up about ten acres a day. It has been found that by doing this an average increased yield of about ten per cent is obtained. This kind of bunding should be done as the final preparatory cultivation operation for a crop and the best time to do this in the black soil areas is about the month of August.

It is useful in lands which have a gentle slope (of one per cent or less). In higher slopes these bunds are apt to give way frequently and permanent bunds will be necessary.

(2) *Wide spacing of crops.*—In areas of low rainfall the crops have to be spaced sufficiently widely. If the crops are sown closely the small amount of soil moisture available will not be sufficient to support the vegetation and manure the crop. At Hagari, the common spacing between lines of crops is 13½″ in the case of Cholam (Jowar) and 27″ for Cotton. It has been proved, during the course of this work, that slightly wider spacing of 18″ for Cholam and 36″ for Cotton gives more assured crops. The cultivators round about Hagari have realised the value of this wider spacing and are adopting this practice. The old seed drills of narrow spacing are now giving place to new seed drills of the improved spacing. The spacing of a crop is a function of the rainfall of the tract, i.e., as the rainfall increases the spacing between the plants is to be decreased. The proper spacing of the crops for each sub-area has to be determined and trials in this direction are in progress in the other taluks of the district which have slightly higher rainfall.

(3) *Improved strains of millets.*—The common millets grown in this area are (i) Cholam (Jowar or Jonna), (ii) Tenai (Korra). High-yielding strains in these millets have been evolved which have been found to give 8 to 10 per cent increased yield over local varieties. These improved strains are H-1 and M.47-3 Cholam and H-1 and H-2 in Tenai. These strains are becoming popular in the districts of Bellary and Anantapur. Under a scheme of Grow More Food Campaign seed farms for the production of large quantities of seed of these improved strains are now being intensified with a view to cover the entire districts with these seeds.

(4) *Periodical manuring.*—In these areas of low rainfall it was found that heavy doses of manure are not really beneficial, because there is not sufficient moisture in the soil to make the manure available to the plants. It was found that what is required is a small dose of manure periodically applied. From the results of the manurial trials, it was found that 5 to 6 cart-loads of cattle manure applied to the field once in 4 or 5 years is beneficial. This practice is being advocated. To supplement the cattle manure which is not available in sufficient quantities in the villages, compost-making is being advised. Composts are made with village rubbish green leaves, residues of field crops, nightsoil and other organic matter which are now being wasted. In the villages fuel being scarce, the cultivators are forced to utilize cattle manure as fuel and thus depriving the land of what is its due. If all the

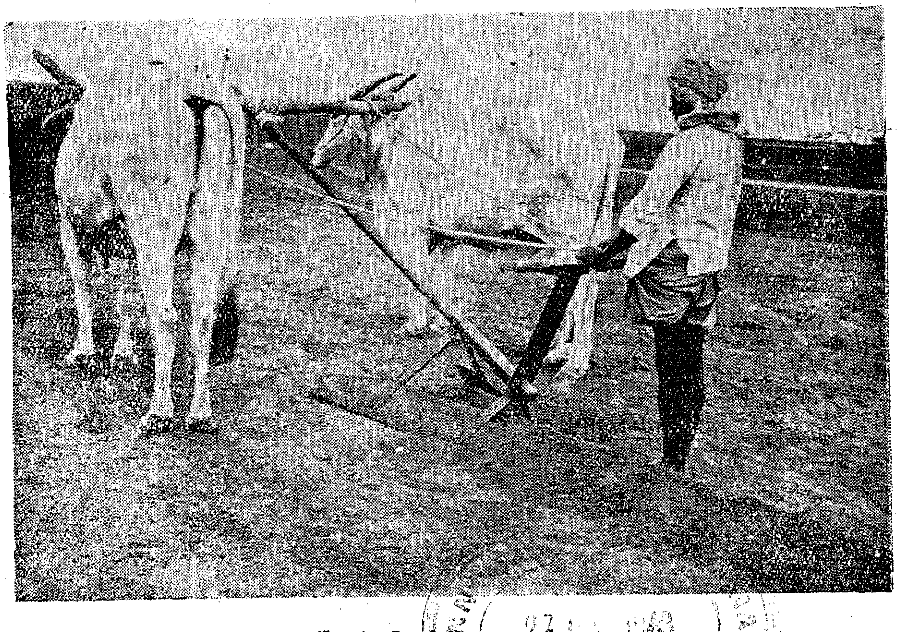


Fig. 1—Bund-forming implement

manure were returned to the land instead of being burnt as fuel, increased crop production becomes possible. The remedy for this is to raise fuel plantations to supply the necessary fuel and to release cowdung for manure purpose. Emphasis has been laid on the fact that fuel plantations near the villages are necessary for the prosperity of the villager and attempts are being made to give effect to this.

(5) *Contour cultivation.*—Agricultural land is not level and it always slopes to a greater or lesser extent. When rainfall falls it runs down the slope carrying soil with it. It is necessary to cultivate the lands across the slopes and not along the slopes, to offer the greatest resistance to the flow of rain water and save the soil being washed away. The ideal way of doing this is to cultivate on the lines of the contour. Under our conditions of fragmented holdings it will be difficult to adopt strict contour cultivation. The next best is to at least cultivate across the main slope of the land so that resistance is offered to the main flow of the rain water. This is a soil-saving device and is being advocated by the Propaganda section of the department for the benefit of the ryots.

(6) *Permanent field-bunds.*—Permanent field-bunds confer permanent benefit to the land. They arrest the free flow of rain water and soil from the land so that the rain water is made to soak into the land, and the soil is left in the field. Field embankments, to be effective and economical, should be put on the contour as far as possible. (*See* Fig. 3.) A landscape is always divided into several catchments and each catchment is a unit of work. The bunds have to be put up starting from the highest point and working down to the lower regions. They have to be at intervals of about 300 to 500 feet depending on the slope of the land. The contour lines have to be smoothened and fitted to the boundaries of existing fields as far as possible, to avoid the cutting up of holdings into very inconvenient bits. These lines should keep to the general trend of the contour in the catchment. By doing this the whole catchment is bound up and the maximum benefit is obtained by bunding. From the results of experimental bunding conducted at Hagari it was found that bunded fields gave increased crop yield varying from 15 to 20 per cent over neighbouring fields which were not bunded. It was also found necessary to provide

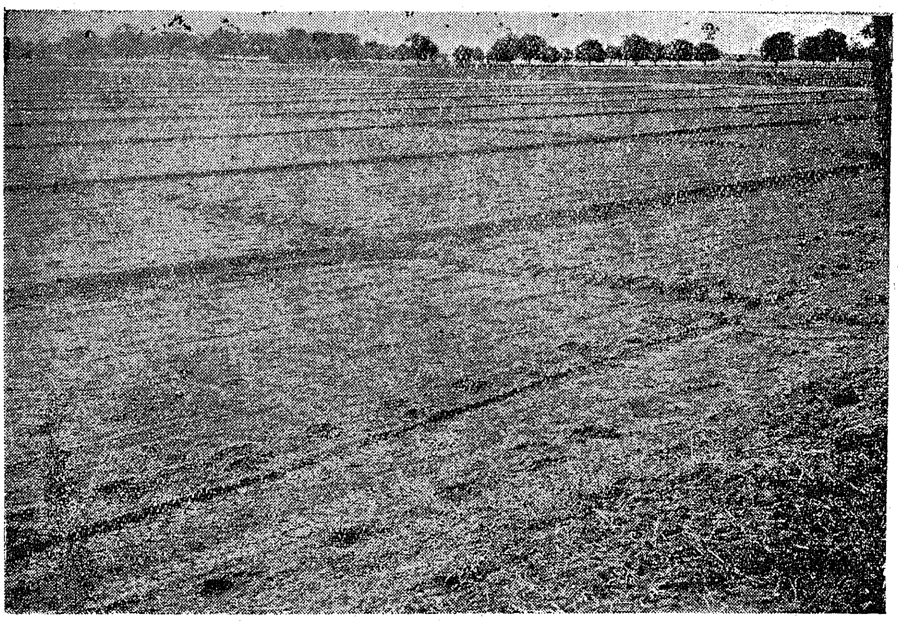


Fig. 2—Bunded compartments, formed by the bund-forming implement

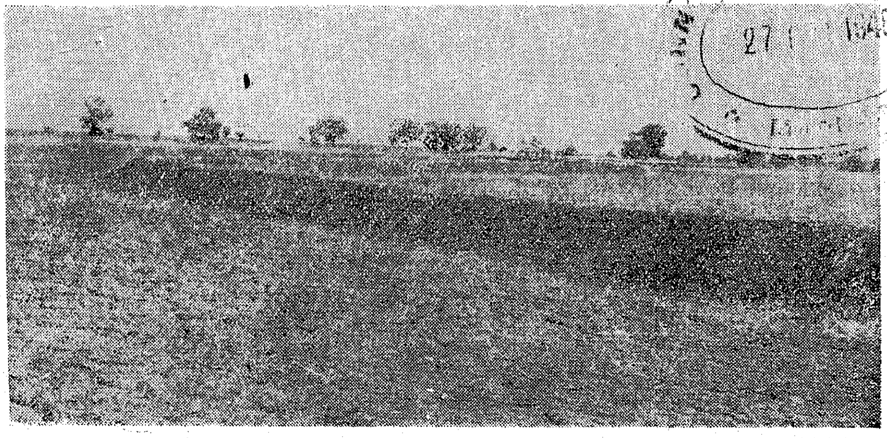


Fig. 3—Contour bund

suitable weirs for field embankments. Loss of rain water and the loss of soil through erosion are national losses and require to be remedied as early as possible. Schemes of bunding with a view to prevent the loss of soil and rain water in low rainfall regions, are under the consideration of the Government and will be given effect to in due course.

Agriculture in Other Countries

America

The Airplane Helps the Farmer

A new kind of farmer's organization in the United States has got away to a flying start in these early post-war years. Its members are leaving the solid ground and are taking to the air.

In 29 States air-minded farmers who own light airplanes and fly them on a variety of jobs in the operation of their farms, and for business and pleasure trips, have formed State flying farmers' associations.

Those light planes are proving their worth in all sorts of ways, saving hours that can be put to good use in the fields or in the barns.

Great Britain

Compared with last year there has been an increase of tillage of 263,000 acres. High targets set for both the potato and sugar-beet crops have been exceeded. Crops of wheat, barley, oats and rye are all shown to be moving substantially in the right direction.

No less remarkable, especially in view of the difficulties about feeding-stuffs, are the livestock returns.

Cattle have increased from 7,175,000 to 7,339,000; pigs from 1,146,000 to 1,631,000; sheep and lambs from 10,162,000 to 10,848,000 and poultry from 41,000,000 to 52,000,000.

Most significant of all, however, are the figures about man-power. Largely owing to the repatriation of prisoners of war, the total employed on the land has fallen. That serious loss has not yet been made good, and the man-power shortage on the land will be seriously felt.

However, it is a big achievement that the number of male workers over 21 working on the land has increased by no fewer than 23,000.

In the years before the war it was quite a normal process for 10,000 men or more to leave the countryside in a single year. Year after year, indeed, the fatal drift went on and successive Ministers of Agriculture seemed unable to stop it.

The need for more men on the land will remain acute if British agriculture is to reach the general production increase set for 1951–52.

But Tom Williams and the nation at large can have the satisfaction of knowing that a good start has been made.

DELHI DIARY

Experiment in Co-operative Farming near Delhi

Driven out by communal trouble from their ancestral homes in Sind and Bahawalpur, 35 families of cultivators have started life afresh at village Chatarpur, about 12 miles from Delhi.

Sponsored by the Indian Co-operative Union, Limited, these agriculturists have formed themselves into a multi-purpose agricultural co-operative society. They have started the cultivation of 400 acres of land vacated by Muslims last year. Two hundred and fifty acres have been sown with the *kharif* crop, which when harvested will be distributed among 150 members of the colony "each according to his needs."

Assisted by the Central Ministry of Agriculture with a 60 H.P. Tractor, technical personnel, seeds and agricultural implements, the Co-operative Society will now cultivate the remaining 150 acres and sow them with *rabi* crops.

Salvage of City Milch Cattle

The problem of salvaging prime cows and buffaloes, which are annually brought into Indian cities from rural areas for urban milk supply and are sold to butchers when they go dry, engaged the attention of the Indian Council of Agricultural Research several years ago.

In 1941 a committee was appointed to investigate the matter on the spot in the cities of Bombay, Calcutta and Madras, where the problem is most acute. Apart from being sold to the butcher the milch cattle are subjected to such malpractices as to render them sterile or otherwise unfit for breeding purposes. This continuons process of premature slaughter and destruction of breeding value constitutes a steady depletion of the actual and potential cattle wealth of the country.

The Committee has invited suggestions on the subject to reach the office of the Milk Commissioner, Wakefield House, Ballard Estate, Bombay, so as to reach him by September 22.

* * *

Indian Independence Medal

To mark the advent of the Indian Independence and in order that members of the Armed Forces in India should bear some recognition of this important event, His Majesty the King has instituted a new medal called "The Indian Independence Medal," according to a Royal Warrant, dated July 21, 1948, published in the *Gazette of India*, dated September 18, 1948.

Among those who will be eligible for the medal will be all Indian nationals, male and female, who were serving on the strength of a unit of the Indian Armed Forces on August 15, 1947, the Ruling Princess and members of the State Forces of States which had acceded to the Indian Dominion by January 1, 1948, and British Officers, Ratings, other Ranks and Airmen, male and female, serving on January 1, 1948, with the Armed Forces of the Dominion of India.

OTHER PROVINCES

Works Committees in East Punjab

The East Punjab Government have decided to constitute Works Committees in all industrial establishments in which 100 or more workers are employed or have been employed on any day in the preceding 12 months in accordance with section 3 of the Industrial Disputes Act. These committees should consist of equal representatives of employers and workmen engaged in the establishments. In the interests of national economy and increased production, it is also desired that production committees should be set up for each unit and industry. With a view to avoiding multiplicity of committees it may be expedient to have a common personnel for the works and production committees, but it would be preferable if the two committees meet and function separately

for dealing with matters falling within their respective spheres.

* * *

Adult Education Certificate in Central Province

Government have prescribed a procedure for the award of Adult Education Certificates and for the drawal and disbursement of the reward of Rs. 2 per adult male and Rs. 5 per adult woman to teachers in primary and Indian middle schools who would teach and enable illiterate adults to pass the Adult Education Certificate Examination under the Social Education Scheme, launched by Government in this Province.

* * *

Labour Advisory Board in Assam

In pursuance of the Resolution on Industrial Truce adopted at the Industries Conference held in New Delhi last December and in view of the fact that the increase in industrial production which is so vital to the economy of the country cannot be achieved without the fullest co-operation between the labourers and the employers, the Government of Assam have formed the Assam Provincial Labour Advisory Board.

* * *

Public Health Advisory Board in Assam

The Government of Assam have constituted a Public Health Advisory Board. The function of the Board will be to advise Government on matters of public health in the Province. The Medical Minister will be the President of the Board and the Deputy Director of Public Health will act as Secretary.

* * *

Fine Arts and Crafts Exhibition in East Punjab

"It is the objective of the East Punjab Government to have in due course a museum and arts and crafts school" declared His Excellency the Governor Sir Chandu Lal Trivadi, while performing the opening ceremony of the Indian Academy of Fine Arts and Crafts Exhibition at Christ Church College, Simla.

Tractors in East Punjab

As a long-term measure to increase the food supply in the Province, the East Punjab Government has imported 1,999 tractors to cultivate lands evacuated by Muslims and now allotted to Hindu and Sikh refugees. Seventy-five more tractors are on their way.

* * *

Anti-Malaria Drive in East Punjab

To make villages in East Punjab malaria-proof, the panchayats have launched a campaign throughout the Province for the removal of manure heaps and other filthy stuff from places which germinate mosquitoes and flies and are responsible for outbreak of malaria and other epidemics. Wells are being properly looked after and where water is unfit for human consumption, they are being closed. Separate water ponds for cattle have been built.

With a view to giving opportunities to villagers to meet together to discuss problems concerning them and thus bring about better understanding about each other, attempts are being made to construct meeting places in every village.

* * *

Technical Education in East Punjab

The Government of East Punjab have appointed a Committee for enquiring into the present conditions of industrial and technical education and to recommend measures, if necessary, for overhauling, reorganizing and extending such education further.

* * *

Embankment and Drainage Advisory Committee in Assam

The establishment of a "Research Station" in Hydrology and soil mechanics which will provide to the Embankment and Drainage Department the necessary scientific services that will be required for the execution of the schemes proposed to be carried out in this Province for the control of flood and land erosions, has been recommended to the Government by the Embankment and Drainage Advisory Committee.

* * *

Potato Competition in United Province

A scheme for holding a Potato Growing Competition has been sanctioned by the United Provinces Government to encourage the cultivation of potatoes. A sum of Rs. 15,000 for distribution as prizes has been sanctioned. The cultivator with the highest yield per acre in the Province will be awarded Rs. 5,000 in cash, or a gold medal with Mahatma Gandhi's bust embosed on it.

* * *

Scholarships to Backward Class Students in Bombay

The Government of Bombay has sanctioned eight scholarships to selected Backward Class candidates undergoing training in the following trades: (1) Advanced Radio Communication, (2) Electrical Technology, (3) Mechanical Engineering and (4) Electrical Engineering.

These scholarships will cost the Government Rs. 2,040 a year.

* * *

Machinery for Rural Development in Bombay

The existing Taluka Development Associations are being reorganized and designated Taluka Development Boards. The object of the reorganization is to create a taluka machinery for carrying on rural development work.

* * *

Development Work in Bombay

In order to supervise the rural development work done by the various Government departments and District Rural Development Boards, the Government of Bombay have proposed to create agencies which will form a sort of liaison between the Boards and the villagers. They will also provide information about their respective villages, which is often required by the Boards.

* * *

Social Education Drive in Central Provinces

The Central Provinces Government's Social Education Drive has had a good effect on the whole education movement in the Province, as evidenced from figures available. There has been a rush for admissions into primary schools. Even grown-ups of as high ages as 12 and 13 years, whose education was so far neglected, have taken a fancy for the school now. The guardians and elders have become much more particular in sending their wards, even though belated, to join the school.

Bee-Keeping in Bombay

In Bombay Province there are about 3 to 4 thousand Bee Colonies established producing about 20 to 25 thousand pounds of honey every year. In North Kanara the work is being carried on since eight-nine years started by the All-India Village Industries Association and now run by the Bombay Co-operative Department. A number of co-operative societies have been started and are run satisfactorily.

There is much scope for developing the industry and several crores rupees worth of honey could be produced every year.

* * *

Honorary Co-operative Organizers in Bombay

The continuance of the system of taluka honorary organizers and district honorary organizers of Co-operative societies has been sanctioned by the Government of Bombay. Actual appointments in future will however be made by the Registrar of Co-operative Societies and Director of Agricultural Marketing and Rural Finance in consultation with the Bombay Provincial Co-operative Institute, ordinarily from among the members of the district co-operative boards and committee members of the taluka supervising unions, respectively.

* * *

Assam Cottage Industries

Inaugurating the first meeting of the Administrative Council of the Assam Cottage Industries Co-operative Association, Lady Hydari, Chairman of the Council, said " There is much work ahead of us, work which in all Provinces in India will have to be done, sooner or later, in support of their rural economy. In some Provinces Cottage Industries Societies on co-operative lines have been working for quite a long time.

Welcoming some of the members of the working committee of the Assam Industries Association to the present Administrative Council of the Assam Cottage Industries Co-operative Association to which it is now amalgamated, Lady Hydari said, " I know how hard you worked to keep your Association going in very hard times and I feel confident that you will extend to the daughter Association the same devoted care that you gave to her mother. Your advice and long experience will be of great value to us in this Council and I hope we shall never give you cause to regret your allegiance to our cause, for the sake of the Province in which you live."

* * *

Animal Diseases in Bombay

The Government of Bombay proposes to make legislative provision for the prevention and control of contagious diseases affecting animals.

The draft legislation, called the Bombay Animal Contagious Diseases (Control) Act, 1948, and published in the Bombay Government Gazette of September 20, gives powers to the Government to adopt measures for regulating the movements of cattle and compelling the owners to have their animals tested or to carry out vaccination or inoculation.

* * *

Development of Khadi Industry in U.P.

Ten thousand rural spinners and 1,000 local workers will be trained this year in pursuance of the U.P. Government's drive for the development of khadi industry in the Province.

Training camps have so far been opened in 25 districts. Out of the successful candidates at the examinations of master spinners, 36 candidates have been selected for appointment as spinners' supervisors. They have been posted to districts to organize the local workers' training camp. Sixty-four more candidates are being appointed in order that each district may have two spinning supervisors for the organization of these camps. These camps will be run in consultation with the district development associations and the Gandhi ashrams in those areas.

* * *

Publicity Department Mobile Unit in Central Provinces

More than 35,000 people witnessed 15 shows of educational films given by the Publicity Department at Nagpur.

BOOKS AND PUBLICATIONS

" KURAL "

SELECTIONS FROM BOOK I AND II WITH ENGLISH TRANSLATION AND NOTES BY SRI C. RAJAGOPALACHARI. ROCKHOUSE AND SONS, LTD., MADRAS.

In the course of his preface to this greatly renowned work, Sri C. Rajagopalachari refers to a needless and unseemly controversy about the religion of Thiruvalluvar. It is a tradition among commentators of great works in Tamil to discuss, in all seriousness and at some length, the religion of the authors and shed no decisive light on the subject finally. Few scholars have realized that it is not germane to the literary value of the work under discussion to dilate at length on the religion of the concerned author. Judged against this background, it is refershing to note that Sri C. Rajagopalachari has nailed the myth of Jainism being Tiruvalluvar's religion to the coffin by saying that " Tiruvalluvar was one of those rare and great men, whose catholic spirit rose above all denominations and whose vision was not clouded by dogmas or prejudice of any kind. His teachings elude classification on any denominational basis."

The special features of this translation of Kural are its fidelity to the spirit of the text and the easy, flowing English with which it is clothed. The couplet in Tamil on page 7 of the book, namely,

தெய்வம் தொழாள் கொழுநன்
தொழுது எழுவாள்
பெய்யெனப் பெய்யு மழை

has been variously interpreted, to the extent of stating that the true wife should not worship God. Her only duty is to worship her husband. It is fantastic to imagine that Tiruvalluvar with his known piety, would have laid a ban on the worship of God by a wife. Rather, emphasis is laid by him on the importance and greatness of looking upon the husband as

God on earth. It is interesting to note that Sri C. Rajagopalachari has given an intelligent and new commentary on this oft-quoted couplet: "The Vedanta as well as Hindu practice have forms of worship, which enable the devotee to see the supreme deity in every object of love or adoration. Husband worship is not neglect of God."

On page 198, the editor has reproduced one of the well-known couplets on friendship, namely,

கேட்டினும் உண்டு ஓர் உறுதி கிளைஞரை
நீட்டி அளப்பது ஓர் கோல்

The translation is "misfortune has its use in that it serves as a yard-stick for you to spread out and measure the constancy of freinds and relatives." One wonders whether Tiruvalluvar, if he had known the English language, could have translated this verse better. Besides giving an accurate, word to word meaning for the text, without exaggerating or minimizing the significance of the whole purport of the couplet, the translation brings out in a commendable manner the full implications of the text.

In the chapter on Oppression and Misrule, the following couplet is reproduced:

துளியின்மை ஞாலத்திற்கு எற்று அற்றே வேந்தன்
அளியின்மை வாழும் உயிர்க்கு

While translating this couplet, the editor differs from Parimelazhagar, the celebrated commentator of Kural. While ஞாலம் is interpreted as the world and its inhabitants by Parimelazhagar, Sri C. Rajagopalachari takes it to mean the non-sentient earth. Much may be argued on both sides, as both interpretations suit the context. But one doubts whether there is any authority to interpret ஞாலம் as the non-sentient earth. The time-honoured meaning known to all Tamil scholars seems to be that adopted by Parimelazhagar. Further, one is not inclined to agree with Sri C. Rajagopalachari, when he remarks as follows: "The Parallelism is nearly lost by taking ஞாலம் to mean here, as it usually does, the world and its inhabitants."

Credit, however, goes to Sri C. Rajagopalachari for setting us a thinking about alternate meanings to ஞாலம்.

Great credit is due to Sri C. Rajagopalachari for translating this famous work in Tamil in a commendable manner. The arrangement of chapters and the short introduction to each chapter in English, bringing out the essential aspects of the couplets translated below add to the usefulness of the work. Like the famous two-line verses of Kural, the translations are brief, pithy and noteworthy for their terseness. —A.R.

"WAGES PROBLEM OR LABOUR'S YARD-STICK AND REWARD"

By D. V. R. IYER. *Published by the author, H.* 1156, *Bagh Muzaffar Khan, Agra. Price Rs.* 5.

In this small publication the author analyses the various aspects of the wages problem. He has made an elaborate study of the latest systems adopted in recent times in advanced Western Countries for stimulating labour to greater productive activity. The demands of labour for higher wages could be met only when labour helps to increase production; for, the capitalist argument that wealth must first be produced before it can be distributed contains a germ of truth. Time and motion study, job evaluation, merit rating and incentive systems of remuneration are being adopted in the west. Differential rates of wages under incentive systems are management's modern tools to secure sustained iif not rising level of labour effort. After describing at some length these systems of remunerating labour which would stimulate greater effort on its part, the author however feels that it would not be practicable to adopt them in India at the present stage of industrial development. Indian economy is too poor to afford these costly devices.

With reference to the Indian Textile Industry the author has enumerated the important causes of industrial strife and emphasizes the need for enlisting the willing co-operation of labour which must be assured a higher standard of living. A larger share of the industrial reward is essential to give the necessary fillip to labour to step up production. In view of Indian labour being "illiterate, ignorant and sometimes at the mercy of half baked leaders whose Marxist animosit'es work to widen the gulf between the living limbs of an industry—employers and the employees" the author pleads for a liberal valuation of labour's share for bringing about industrial harmony and increased industrial output.

This book describes how the wages problem is tackled in Western Countries although the author holds that the methods adopted elsewhere would not be suitable in the Indian context. For an intelligent understanding of the wages problem, this book may be read with interest. N.K.A.

"SEARCHLIGHT ON INDUSTRY"

By D. V. R. IYER. *Published by the Author, H.* 1156, *Bagh Muzaffer Khan, Agra. Price Rs.* 6–4–0.

This is a book which can be read profitably by Industrialists and students of Accounting. It is intended to convince the reader of the importance of Cost Accounting in Industrial business. The author's standpoint is that an industry that has no idea of its true costs can have none of economy either. Cost Accounting will enable Industrialists to husband their resources and adjust the internal working and routine so as to provide the best profits margin. It will also eliminate financial secrecy in business which is often the cause of Labour's suspicion of Capital. Standard cost is defined by the author as the normal cost for output at normal operations level. The author defines it also as the lowest cost obtainable under given conditions. As a normal cost cannot be the lowest cost, both the definitions cannot be correct at the same time. The former definition is clearly the correct one.

It is argued that standard costing is superior to all costing methods. Such an argument need not have been attempted, for, while standard costing, as costing before the event, is essential for an industry to eliminate by comparison, inefficiency and excess costs, the actual costing is what the Industrialist is concerned with. A Job costing is a *de facto* costing, and a standard costing, a *de jure* costing. There can be no question of the superiority of the one to the other. Both have their places. The author's statement elsewhere that while costing measures the results achieved, standard costing sets up the yard stick with which to assess the results achieved, hits upon the correct view. The Industrialist will do well to work out standard costing in a competitive market. It will be obvious, however, that inflation and scarcity of goods, as prevailing at present, will take the edge off the author's argument for standard costing. When there is enough money for the purchase of goods and goods are scarce, an Industrialist will have no need to be too careful about his costing accounts. A standard costing will hardly exist

in such circumstances and even if it did, it will be unheeded.

The importance of supplementing Standard Costing with Budgetary Control in cost control is stressed. Industrialists will doubtless agree with the author that the forecasting of activities from the point of view of sales is the corner stone in all Industrial Budgets.

The book is not broken up into chapters but is written in the form of an essay in flowing style. D.G.R.

"OBSCURE RELIGIOUS CULTS" (as background of Bengali literature)

By SHASHIBHUSHAN DAS GUPTA, M.A., PH.D., *Calcutta University. Price Rs.* 15.

The object of the book under review is to trace the influence on the development of Bengali literature, of various obscure religious cults—which lost their potency later—in different stages of its growth. The priority in this connection is claimed by Shajiya Buddhism which produced the Dohar Songs popularised by that fraternity. Later the dominant note is supplied by the Vaishnava Sahajiya movement. Next came the Natha Cult and the Dharma Cult in successive stages. The author explains the main features of these cults and then proceeds to trace their influence on the currents and cross-currents that shaped the literacy growth which otherwise remain obscure. The dual conception of Siva and Sakti, Radha and Kr shna, Prajna and Upaya of the Buddhists, and Sun and Moon of the Natha Cult plays an important part in the evolution of Bengali literature. Siva-Sakti conception led to the Sākta Cult in which Sakti as the supreme cosmic energy looms large and Siva is relegated to the background. This exercised considerable influence over Bengali society and Literature, till a comparatively late period, nay even to the modern times, when we find Bankim, the great novelist as one of its ardent exponents. His Kapālakundala pictures the intricacies of its esoteric atmosphere drawing pointed attention to some of its unworthy accretions.

In the latter phase of the development of Bengali literature and Society, the Siva element gives way to the Vaishnavic bias which finds it most emphatic expression in the Radha-Krishna cult. The change probably found its first champion in Jayadeva whose writings have curiously travelled all the way to Malabar where it has acquired all the import of an indigenous creed, leaving little trace of it on the way. A few centuries later, Chaitanya perfected it on the highest emotional pitch combining in himself the lover and the loved, revealing a mystic experience of the most transcendental variety. This attitude along with the impact of post-Wordsworthian tendencies in Engliah literature which engulfed Indian thought in modern times led to the fusion of religious and æsthetic moods of which Tagore is the most illustrious example. His vision of his childhood (Religion of Man) is the most characteristic expression of this mood. Says he "The rhythmic picture of the tremulous leaves beaten by the rain opened before my mind the world which does not merely carry information but a harmony with my being. The unmeaning fragments lost their individual isolation and my mind revelled in the unity of a vision. . . I felt sure that some being who comprehended me and my world was seeking his best expression in all my experiences uniting them to an ever-widening individuality which is a spiritual work of Art." The Ezhuthaccan School in Malayalam literature also expounds the same idea —"Oh Narayana, don't make me self-centred and proud; but if my inclination goes that way, enlarge myself and make me feel that I am in everything."

The author deserves credit for the vast material he has collected on the subject and the clear exposition thereof. At times, however, he is apt to lose himself in a mass of details.

—K.C.N.

"LORD OF THE JUNGLE"

By JAMES CHILTON. *Published by University of London Press Limited, Warwick Square, London, E.C. 4. Pages* 238. *Price* 12/6 *net.*

This is the story of a tiger told in its own words describing its growth from a cub to the Lord of Bhurgi jungle. Numerous interesting and little known details of animal life have been revealed, in this book by the author, who is a famous big-game hunter. The jungle laws are an interesting commentary on our democratic thought and system, they also show how the problem of minorities is tackled in the jungle.

The Bagh, or tiger, according to the author, would appear to show the least instinct of self-preservation and the maximum amount of policy and cunning in the systems of warfare of the jungle. This might perhaps surprise a few who are still inclined to give the place to the Lion as the time-honoured King of Wild Beasts. The author has so many illustration to give of the might of the tiger compared to that of any other contemporary. Panther, python, crocodile, bison and the uncivilised elephant are still his perennial rivals. Among the backward classes, monkeys and hyenas are perhaps neutral or even critically sarcastic, while a few like the fox claim to be allies or even satellites. Communist wolves in packs can still be the dread of the congregation, ferocious or tame, while they all of them taken together can make common cause to drown all their enmities for escape from a flood or forest fire threatening existence in their domain.

The book is a fascinating picture of jungle life. —M.A.K.

"LEGAL DECISIONS AFFECTING BANKERS"

By Mr. P. S. SITARAM. *Published by Thackers & Co., Bombay. Pages* 265. *Price Rs.* 12-8-0.

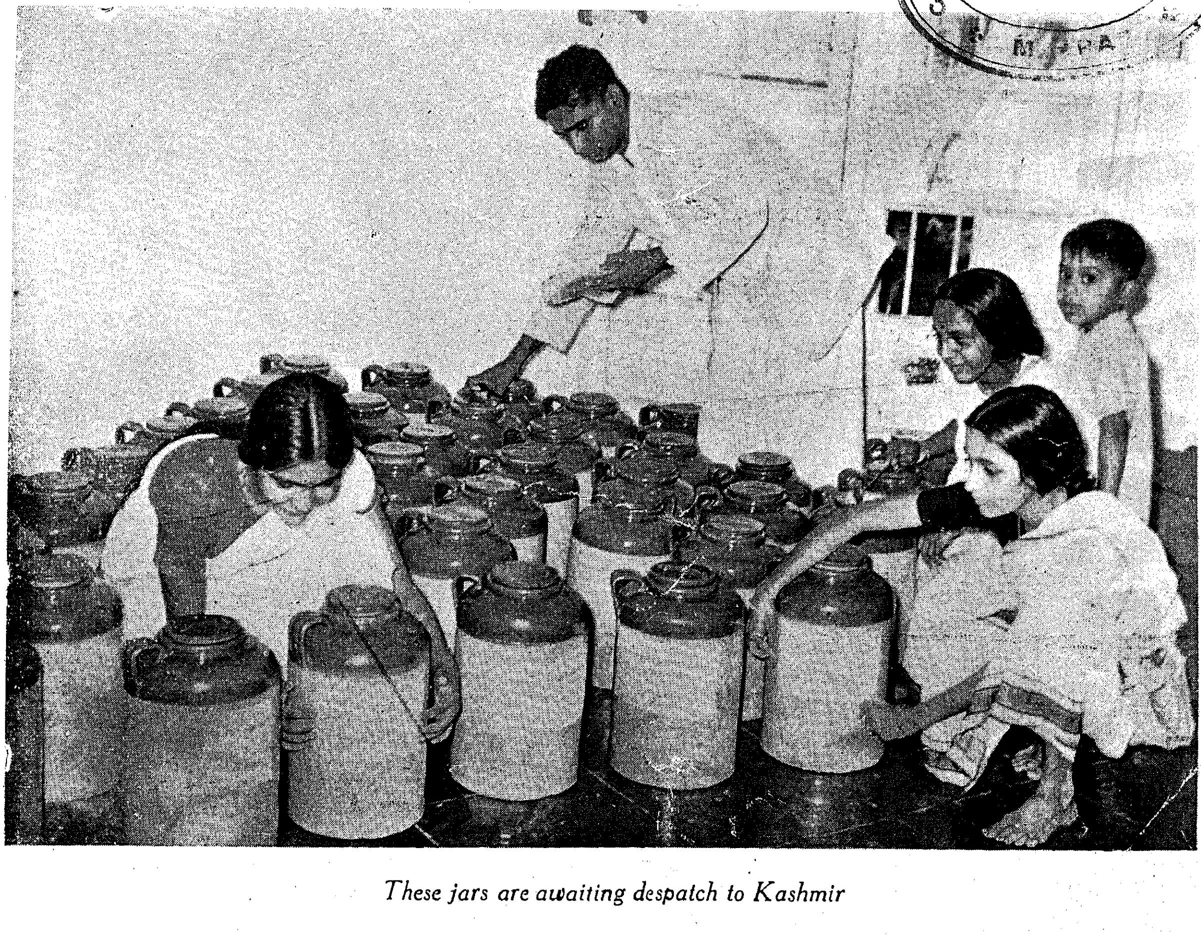
Mr. Sitaram's work is undoubtedly a valuable addition to the meagre literature on Banking in India. It is bound to find its legitimate place among the books of reference in a banker's shelf. But to what extent banking will allow itself to be moulded or guided by past decisions, is a very vexatious problem for it is not unusual that contrary judgments are delivered, while the cases themselves have many fundamental points in common. This is rendered possible by the wide scope for interpretations admissible to the various terms used in the Negotiable Instruments Act. An instance in point is the multitude of opinions on 'payment in due course and without negligence'. In such a vast field, merely citing the various circumstances of the cases and referring to the decisions, as has been done in this book, is not likely to be of much help to the reader, who will be unable to grasp the implications of the problem, as expounded by both the sides. In refreshing contrast to this is the treatment of some cases, where the arguments on both sides have been given at some length. The author has no doubt given references and cross references to the law reports in which the cases have been reported for further information; but the book itself could have been made more self supporting, if a summary of this information had been given.

The author is however to be congratulated on the patience and interest with which he has collected considerable material. —A.C.D.

AMENITIES FOR TROOPS FIGHTING IN KASHMIR

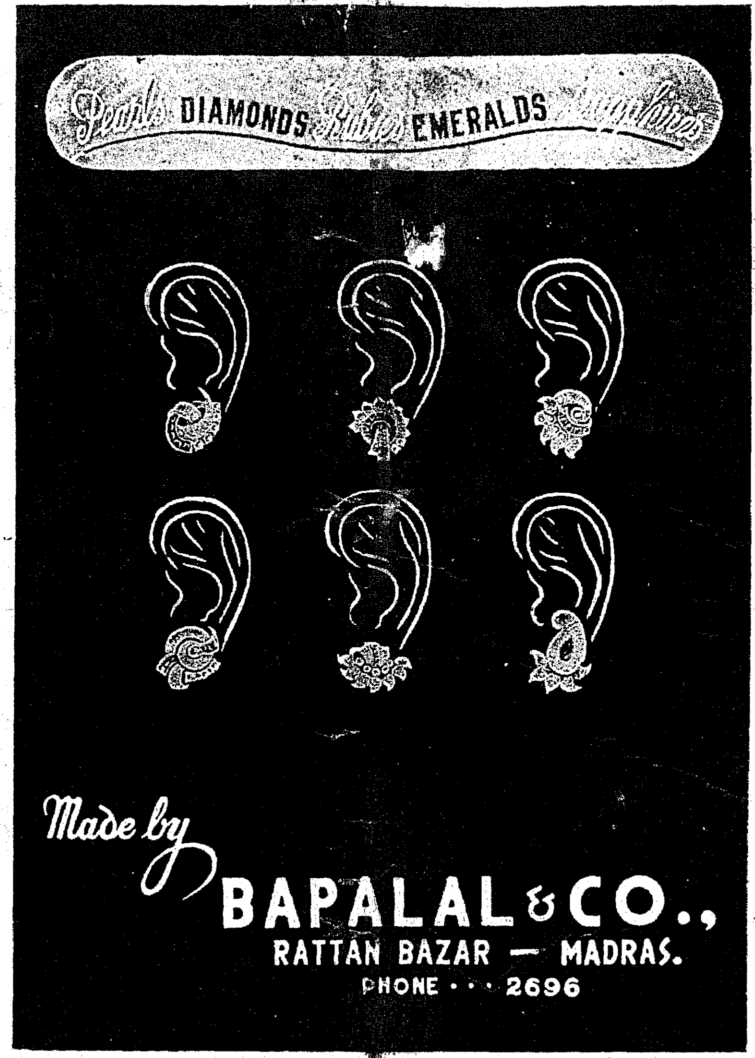
Pickles are being prepared for Kashmir Troops

PUBLIC
RARY
27 O 1948



These jars are awaiting despatch to Kashmir

Registered No. M-4767.



BAPALAL & CO.

Diamond Merchants and Manufacturing Jew[ellers]

Rattan Bazaar, Madras-3

Telegram: "NECKLACE"

Telephone: 2696

MADRAS: PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS. EDITED AND PUBLISHED BY THE DEPARTMENT OF INFORMATION AND PUBLICITY.